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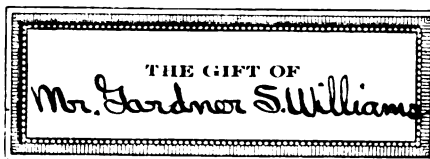
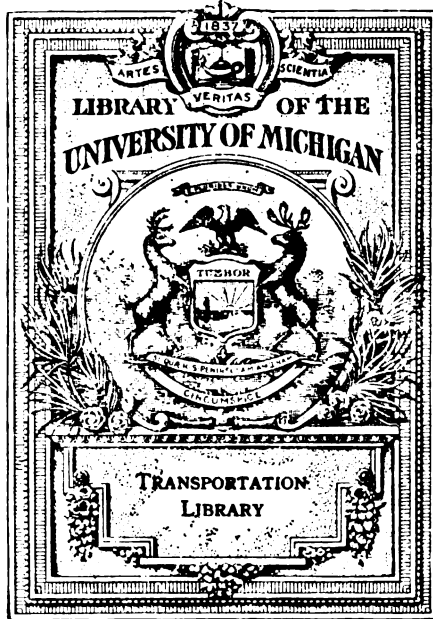
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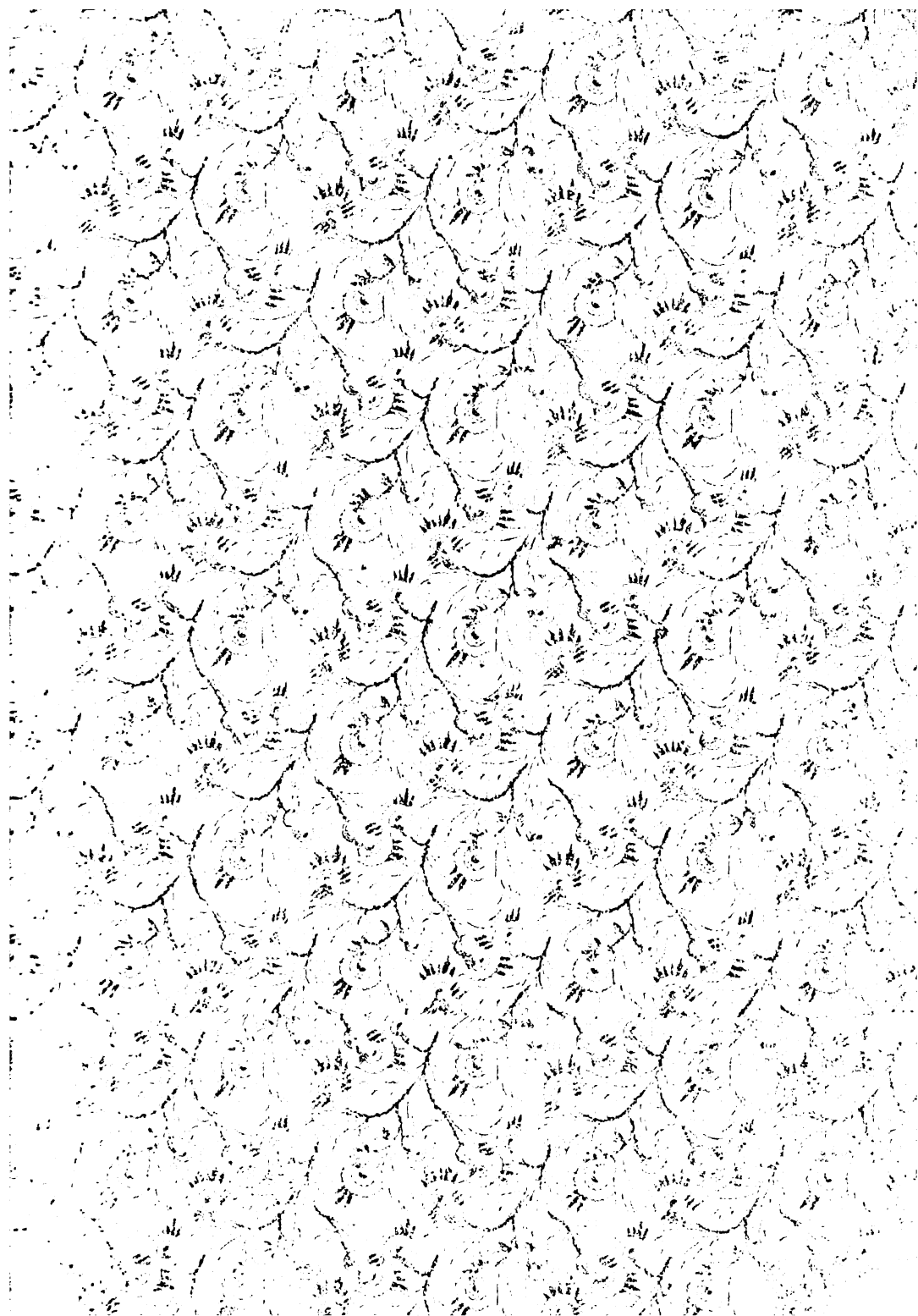
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1901

PROCEEDINGS

OF THE

BOARD OF TRUSTEES

OF THE

SANITARY DISTRICT OF CHICAGO

January 1, 1901 to December 31, 1901

---

CHICAGO:

JOHN F. HIGGINS, PRINTER  196-198 CLARK STREET

1902

14.0979

T1

C5

B6P

1901

medical  
Gift  
6-3-53

MEMBERS OF  
BOARD OF TRUSTEES AND OFFICERS  
OF THE  
**SANITARY DISTRICT OF CHICAGO**

For the Years 1901 and 1902

---

**BOARD OF TRUSTEES**

WILLIAM H. BAKER.....	188 Madison Street
JOSEPH C. BRADEN.....	305 LaSalle Street
ZINA R. CARTER.....	225 W. Sixteenth Street
FRANK X. CLOIDT.....	219 Twenty-Fourth Place
ALEXANDER J. JONES.....	1110 Security Building
WILLIAM LEGNER.....	405 N. Paulina Street
THOMAS A. SMYTH.....	803 Jackson Boulevard
THOMAS J. WEBB.....	85 Kinzie Street
FRANK WENTER.....	475 Ashland Boulevard

**OFFICERS**

THOMAS A. SMYTH.....	President
FRANK X. CLOIDT.....	Vice-President
A. R. PORTER.....	Clerk
FRED M. BLOUNT.....	Treasurer
ISHAM RANDOLPH.....	Chief Engineer
JAMES TODD.....	Attorney
JOHN S. RUNNELLS.....	General Counsel
EDWARD J. COEN.....	Marshal

---

OFFICES OF THE DISTRICT: SECURITY BUILDING.

## COMMITTEES FOR 1901-1902.

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### Engineering.

JOSEPH C. BRADEN, Chairman.  
WILLIAM H. BAKER, FRANK WENTER, THOMAS J. WEBB,  
WILLIAM LEGNER, FRANK X. CLOIDT,  
ZINA R. CARTER, ALEX. J. JONES, THOMAS A. SMYTH.

### Finance.

ZINA R. CARTER, Chairman.  
FRANK X. CLOIDT, JOSEPH C. BRADEN, ALEX. J. JONES,  
WILLIAM LEGNER, THOMAS A. SMYTH,  
THOMAS J. WEBB, FRANK WENTER, WILLIAM H. BAKER,

### Judiciary.

WILLIAM LEGNER, Chairman,  
ALEX. J. JONES, WILLIAM H. BAKER, JOSEPH C. BRADEN,  
ZINA R. CARTER, FRANK X. CLOIDT,  
FRANK WENTER, THOMAS J. WEBB, THOMAS A. SMYTH.

### Federal Relations.

WILLIAM H. BAKER, Chairman,  
ALEX. J. JONES, FRANK X. CLOIDT, ZINA R. CARTER,  
JOSEPH C. BRADEN, WILLIAM LEGNER,  
THOMAS A. SMYTH, FRANK WENTER, THOMAS J. WEBB,

### Annexation.

FRANK X. CLOIDT, Chairman,  
JOSEPH C. BRADEN, ZINA R. CARTER, FRANK WENTER,  
WILLIAM H. BAKER, WILLIAM LEGNER,  
THOMAS J. WEBB, ALEX. J. JONES, THOMAS A. SMYTH.

### Labor.

FRANK WENTER, Chairman,  
WILLIAM LEGNER, THOMAS J. WEBB, THOMAS A. SMYTH,  
FRANK X. CLOIDT, ZINA R. CARTER,  
JOSEPH C. BRADEN, ALEX. J. JONES, WILLIAM H. BAKER,

### Health and Public Order.

THOMAS J. WEBB, Chairman,  
JOSEPH C. BRADEN, ZINA R. CARTER, FRANK X. CLOIDT,  
WILLIAM LEGNER, FRANK WENTER,  
ALEX. J. JONES, WILLIAM H. BAKER, THOMAS A. SMYTH,

### Rules.

THE PRESIDENT, Chairman,  
WILLIAM H. BAKER, JOSEPH C. BRADEN, ZINA R. CARTER,  
FRANK X. CLOIDT, WILLIAM LEGNER,  
FRANK WENTER, ALEX. J. JONES, THOMAS J. WEBB,

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### Regular Meetings.

Meetings of the Board of Trustees are held on Wednesday of each week at 2 o'clock P. M.

# COMPLETE LIST OF OFFICERS OF DISTRICT

From Date of Its Organization.

## PRESIDENTS.

MURRY NELSON	-	-	-	-	Elected February 1, 1890; served to December 2, 1890
RICHARD PRENDERGAST	-	-	-	-	Elected December 2, 1890; served to December 8, 1891
FRANK WENTER	-	-	-	-	Elected December 8, 1891; served to December 2, 1895
BERNARD A. ECKHART	-	-	-	-	Elected December 2, 1895; served to December 8, 1896
THOMAS KELLY	-	-	-	-	Elected December 8, 1896; served to December 7, 1897
WILLIAM BOLDENWECK	-	-	-	-	Elected December 7, 1897; served to December 4, 1900
ALEXANDER J. JONES	-	-	-	-	Elected December 4, 1900; served to December 3, 1901
THOMAS A. SMYTH	-	-	-	-	Elected December 3, 1901

## VICE-PRESIDENTS.

WILLIAM H. BAKER	-	-	-	-	Elected December 4, 1900; served to December 3, 1901
FRANK X. CLOIDT,	-	-	-	-	Elected December 3, 1901

## CLERKS.

AUSTIN J. DOYLE	-	-	-	-	Elected February 1, 1890; resigned June 25, 1890
THOMAS F. JUDGE	-	-	-	-	Elected July 12, 1890; resigned January 1, 1896
JAMES REDDICK	-	-	-	-	Elected January 1, 1896; resigned December 1, 1898
JOSEPH F. HAAS	-	-	-	-	Elected December 1, 1898; resigned June 29, 1900
A. R. PORTER	-	-	-	-	Elected June 29, 1900

## TREASURERS.

BYRON L. SMITH	-	-	-	-	Elected February 1, 1890; resigned January 15, 1892
MELVILLE E. STONE	-	-	-	-	Elected January 23, 1892; served to December 2, 1896
FRED M. BLOUNT	-	-	-	-	Elected December 2, 1896

## CHIEF ENGINEERS.

LYMAN E. COOLEY	-	-	-	-	Elected February 1, 1890; served to December 10, 1890
WILLIAM E. WORTHEN	-	-	-	-	Elected December 17, 1890; resigned April 21, 1891
SAMUEL G. ARTINGSTALL	-	-	-	-	Elected May 9, 1891; resigned January 16, 1892
BENEZETTE WILLIAMS	-	-	-	-	Elected January 16, 1892; resigned June 7, 1893
ISHAM RANDOLPH	-	-	-	-	Elected June 7, 1893

## ATTORNEYS.

GEORGE W. SMITH	-	-	-	-	Elected July 12, 1890; resigned April 25, 1891
ADAMS A. GOODRICH	-	-	-	-	Elected June 13, 1891; resigned February 23, 1892
ORRIN N. CARTER	-	-	-	-	Elected February 24, 1892; resigned August 15, 1894
GEORGE E. DAWSON	-	-	-	-	Elected August 15, 1894; resigned January 1, 1896
CHARLES S. DENEEN	-	-	-	-	Elected January 1, 1896; resigned April 1, 1896
WILLARD M. McEWEN	-	-	-	-	Elected April 1, 1896; resigned February 3, 1897
FREDERICK W. C. HAYES	-	-	-	-	Elected February 3, 1897; died November 1, 1898
CHARLES C. GILBERT	-	-	-	-	Elected November 30, 1898; resigned December 4, 1900
JAMES TODD	-	-	-	-	Elected December 4, 1900

## LIST OF MEMBERS OF BOARD OF TRUSTEES.

FROM DATE OF ORGANIZATION OF DISTRICT TO DECEMBER 31, 1901.

ALTPETER, JOHN J.	-	-	-	-	{ Elected December 12, 1889 Served to December 2, 1895
BAKER, WILLIAM H.	-	-	-	-	Elected November 5, 1900
BOLDENWECK, WILLIAM	-	-	-	-	{ Elected to fill vacancy November 3, 1891 Re-elected November 5, 1895 Served to December 3, 1900
BRADEN, JOSEPH C.	-	-	-	-	{ Elected November 5, 1895 Re-elected November 5, 1900
CARTER, ZINA R.	-	-	-	-	{ Elected November 5, 1895 Re-elected November 5, 1900
CLOIDT, FRANK X.	-	-	-	-	Elected November 5, 1900
COOLEY, LYMAN E.	-	-	-	-	{ Elected to fill vacancy November 189 Served to December 2, 1895
ECKHART, BERNARD A.	-	-	-	-	{ Elected to fill vacancy November 3, 1891 Re-elected November 5, 1895 Served to December 3, 1900
GILMORE ARNOLD P.	-	-	-	-	{ Elected December 12, 1889 Served to December 2, 1895
HOTZ, CHRISTOPHER	-	-	-	-	{ Elected December 12, 1889 Resigned January 16, 1892
JONES, ALEXANDER J.	-	-	-	-	{ Elected November 5, 1895 Re-elected November 5, 1900
KELLY, THOMAS	-	-	-	-	{ Elected to fill vacancy November 8, 1892 Re-elected November 5, 1895 Served to December 3, 1900
KING, JOHN A.	-	-	-	-	{ Elected December 12, 1889 Resigned July 22, 1891
LEGNER, WILLIAM	-	-	-	-	Elected November 5, 1900
MALLETTE, JAMES P.	-	-	-	-	{ Elected November 5, 1895 Served to December 3, 1900
NELSON, MURRY	-	-	-	-	{ Elected December 12, 1889 Resigned June 19, 1891
PRENDERGAST, RICHARD	-	-	-	-	{ Elected December 12, 1889 Served to December 2, 1895
RUSSELL, WILLIAM H.	-	2	-	-	{ Elected December 12, 1889 Served to December 2, 1895
SMYTH, THOMAS A.	-	-	-	-	{ Elected November 5, 1895 Re-elected November 5, 1900
WEBB, THOMAS J.	-	-	-	-	Elected November 5, 1900
WENTER, FRANK	-	-	-	-	{ Elected December 12, 1889 Re-elected November 5, 1895 Re-elected November 5, 1900
WILLING, HENRY J.	-	-	-	-	{ Elected December 12, 1889 Resigned September 23, 1891



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PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

JANUARY 2, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

**The Five Hundred and Eleventh Regular Meeting of the Board of Trustees**

of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Wednesday, January 2, 1901, at 2 o'clock P. M., President Jones in the chair.

On roll-call Messrs. Braden, Carter, Cloidt, Jones, Legner, Smyth and Wenter—seven members—were present.

**VOUCHERS.**

**The Clerk presented the following vouchers:**

**CONSTRUCTION ACCOUNT.**

C. L. Strobel (footwalk, Lemont).....	\$ 280 00	
John A. Larson (Controlling Works building).....	2,500 00	
Lydon & Drews Company (Chicago River improvement).....	6,774 25	
Illinois Central Ry. Co., lessee (track deviation).....	4,589 10	
American Bridge Company (waste gates, Joliet) .....	482 50	
		\$ 14,625 85

**ENGINEERING DEPARTMENT.**

Pay-roll (supplemental, for December, 1900) .....	\$ 359 37	
W. G. Derbyshire (bridge inspection) .....	163 33	
Hans Isak (gauge reading).....	20 00	
		\$ 542 70

## LAW DEPARTMENT.

M. Haley (witness fees).....	\$ 20 00	
S. M. Dickson (services, December, 1900).....	20 84	
C. Hacker (witness fees).....	70 00	
	<u>\$</u>	110 84

## POLICE DEPARTMENT.

Pay-roll (supplemental, December, 1900).....	\$ 255 58
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## MAINTENANCE ACCOUNT.

Pay-roll (Bridgeport Pumping Station, December, 1900) .....	\$ 304 10
Total.....	<u>\$ 15,839 07</u>

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called the motion was adopted.

*Yeas*—Messrs. Braden, Carter, Cloidt, Jones, Legner, Smyth and Wenter—Seven.

*Nays*—None.

## CALIFORNIA AVENUE BRIDGE—POSTPONEMENT OF TIME FOR RECEIVING BIDS.

Mr. Carter, seconded by Mr. Cloidt, moved that the time fixed for the receiving of bids for the construction of the California Avenue Bridge be postponed

until the Board should be in better financial condition to do the work.

The roll being called the motion was adopted.

*Yeas*—Messrs. Braden, Carter, Cloidt, Jones, Legner, Smith and Wenter—Seven.

*Nays*—None.

## ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Wenter, the Board adjourned.

*A. R. Porter.*  
CLERK

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

JANUARY 9, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Twelfth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Wednesday, January 9, 1901, at 2 o'clock P. M., President Jones in the chair.

On roll-call Messrs. Baker, Braden, Carter, Cloidt, Jones, Legner, Smyth and Wenter—eight members—were present.

**MINUTES.**

The minutes of the adjourned regular meeting held December 24, 1900, and of the regular meeting held January 2, 1901, were approved as printed, on motion of Mr. Carter, seconded by Mr. Wenter.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

Lydon & Drews Company (Taylor Street Bridge).....	\$ 279 80
Pennsylvania Steel Company (C. T. T. R. R. Co. Bridge).....	1,983 75
Heldmaier & Neu (Towpath Bridge).....	110 47
Chicago Bridge and Iron Company (water power plant) .....	323 60
American Bridge Company (waste gates).....	483 50
Isaham Randolph (sundries).....	1,140 89
	\$ 4,271 01

## ENGINEERING DEPARTMENT.

John H. Batterman (envelopes).....	\$ 15 38	
Frederick Pest Company (blue prints).....	10 90	
Hans Isak (gauge reading).....	10 00	
American Water Company (water).....	6 75	
The Chicago Towel Supply Company (towel).....	22 20	
Blakeslee's Express and Van Company (teaming).....	12 00	
Lydon & Drews Company (Chicago River Work).....	66 28	
W. M. Hughes (expense).....	10 30	
W. T. Keating (expense).....	49 58	
G. M. Wisner (expense).....	17 86	
Wm. Trinkaus (expense).....	40 16	
W. T. Keating (expense).....	21 40	
Isham Randolph (expense).....	110 88	
	<u>\$</u>	393 69

## CLERICAL DEPARTMENT.

Chicago Printing and Embossing Company (printing).....	\$ 6 75	
Cameron, Amberg & Co. (letter heads, etc.).....	41 55	
	<u>\$</u>	48 30

## LAW DEPARTMENT.

Samuel L. Hanks (ice).....	\$ 7 50	
Callaghan & Co. (law books).....	20 50	
James Todd, Attorney (expense).....	112 95	
	<u>\$</u>	140 95

## GENERAL ACCOUNT.

Robert E. Hills (sundries "Juliet").....	\$ 8 45	
H. Lewis & Co. (sundries "Juliet").....	11 50	
James McFadden (livery).....	4 00	
Alexander H. Revell & Co. (furniture).....	24 00	
The Inter Ocean (advertising).....	21 90	
The Chicago Chronicle Company (advertising).....	27 60	
American Contractor Publishing Company (advertising).....	26 25	
Western Telephone Construction Company (telephone line).....	17 88	
Isham Randolph (telephone line).....	235 79	
W. T. Keating (telephone line).....	6 05	
F. Lorenz (official stars).....	200 00	
Arthur R. Reynolds (streams examination).....	287 31	
	<u>\$</u>	570 73

## MAINTENANCE ACCOUNT.

W. T. Keating (cement warehouse).....	\$ 10 18	
H. M. Hooker Company (paints).....	92 71	
Isham Randolph (warehouse expenditure).....	248 55	
Standard Oil Company (oil Bridgeport pumps).....	4 00	
R. B. Crouch (oil Bridgeport pumps).....	5 56	
Martin & Morehead (mantle, etc., Bridgeport pumps).....	12 60	
M. J. Rowan (oil Bridgeport pumps).....	86 75	
T. E. Bolton (boiler compound Bridgeport pumps).....	21 00	
Isham Randolph (sundries Bridgeport pumps).....	42 72	
W. J. Freckelton, Jr. (coal Bridgeport pumps).....	1,886 10	
	<u>\$</u>	2,855 17

## P., C., C. &amp; ST. L., CHICAGO JUNCTION AND C. T. T. R. R. COMPANIES.

Isham Randolph (Eight-track Bridge).....	\$ 112 50
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## ISHAM RANDOLPH, CHIEF ENGINEER.

Isham Randolph (freight Belt Railway Bridge).....	\$ 22 90
Grand total.....	<u>\$ 8,215 25</u>



Mr. Carter, seconded by Mr. Cloidt, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called the motion was adopted.

*Yeas*—Messrs. Braden, Baker, Carter, Cloidt, Jones, Legner, Smyth and Wenter—Eight.

*Nays*—None.

**MESSAGE OF THE PRESIDENT IN REFERENCE TO THE RECOMMENDATIONS OF THE GENERAL CITIZENS' COMMITTEE ON CHICAGO RIVER IMPROVEMENT.**

The President presented the following message:

CHICAGO, January 9, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

**GENTLEMEN**—The condition of the finances of the Sanitary District, and the difficulty of complying with the law of the State of Illinois in regard to the flow of water through the Drainage Canal without interfering with navigation in the Chicago River, have been a matter of grave concern to your Honorable Body.

On December 14, 1900, after mature deliberation, it was decided advisable to place the condition of the Sanitary District affairs plainly before the public, and to secure a public expression as to the wisest method to be pursued. To that end, the President and Board of Trustees invited in conference a number of prominent citizens, taxpayers of this community, and also representatives of the following associations, organizations and boards of the City of Chicago and State of Illinois:

The Citizens' Association of Chicago.

The Illinois Manufacturers' Association.

The Chicago Commercial Association.

The Lake Carriers' Association.

The Board of Trade of Chicago.

The Civic Federation of Chicago.

The Chicago River Improvement Association.

The Chicago Real Estate Board.

The Western Society of Engineers.

The Illinois Valley Association.

The Marquette Club.

The Union League Club.

The Hamilton Club.

The Iroquois Club.

The Technical Club.

The Chicago Press Club.

The Cook County Board of Review.

The Cook County Board of Assessors.

In response to these invitations the following gentlemen appeared and participated in the proceedings of the said meeting of December 14, and subsequent sessions:

Harlow N. Higinbotham, Franklin MacVeagh, Orrin N. Carter, William Sooy Smith, William Boldenweck, James P. Mallette, J. H. Willard, Isaac Taylor, John C. Spry, P. W. Gates, John C. Black, James W. Nye, William H. Chadwick, J. G. Keith, Wiley M. Egan, C. W. Elphicke, George Merryweather, Murry Nelson, Christopher Hotz, E. G. Pauling, John W. Kennedy, P. B. Wear, H. B. Slaughter, John A. Roche, Marvin A. Farr, George E. Cole, George W. Miller, Henry Rathbone, John P. McGoorty, William Prentiss, L. O. Goddard, T. T. Morford, W. C. Brown, W. A. Giles, W. W. Baird, Joseph Donnersberger, A. E. G. Goodridge, Dunlap Smith, George Birkhoff, Jr., William A. Bond, H. S. Dietrich, E. A. Cummings, James B. Galloway, L. E. McGann, Dr. A. B. Reynolds, Dr. F. W. Reilly, Ambrose V. Powell, B. J. Arnold, Horace O. Horton, Charles E. Billin, Addison C. Thomas, Frank M. Huston, George Wharton, Roy O. West and James J. Gray.

At the opening meeting of the Committee of Representative Citizens as above constituted, the President of the Board of Trustees, in opening the deliberations, stated that the object of the meeting was to secure a public expression as to the policy which should be pursued by the Sanitary District. It was explained that in view of the recent reduction in valuations of the taxable property of this community, the Board found itself confronted by a direct conflict of laws in the performance of its duty. The law of the State of Illinois, under which the Sanitary District was organized, provides that their must be maintained at all times a continuous flow of 800,000 cubic feet of water per minute through the Drainage Channel, and that provision must be made for a greater flow as the population increases. The Chicago River has, by ordinances and improvements of the Sanitary Dis-

trict, been made a portion of the Drainage Channel. Experience has demonstrated that in passing the full legal flow of water through the Chicago River, inevitable embarrassment results to navigation, and that the commerce of the city is thereby gravely affected. The policy of the Board of Trustees, adopted on April 11, 1900, to meet these impediments to navigation and commerce, and to create the flow of water required by law and increasing population, provides for a channel at least 200 feet wide from Twelfth Street to the entrance of the artificial channel, and for a width of 200 feet so far as practical, from Twelfth Street north to the mouth of the river, and, in addition to this, it provides for the gradual substitution of bascule bridges in lieu of the present pier bridges which are so obstructive to navigation. This, together with the volume of water to be secured through the Thirty-ninth Street conduit would, the Board believe, effect a full compliance with the State law, and at the same time preserve the interests of navigation. At the time this action was taken the assessed valuation of the Sanitary District, by the last regular assessment, was \$388,674,447. Since that time, by the action of the Cook County Board of Review, and the subsequent action of the State Board of Equalization, this valuation is reduced to approximately \$260,000,000. The loss, therefore, not only in yearly revenue from the tax levy, but in the ability to re-issue bonds, is apparent, and was fully explained to the Committee by Mr. Carter, Chairman of the Finance Committee for the past three years, who had

given this subject great attention in directing the financial policy of the District.

On the one hand, it was explained by the President, is the law of the State of Illinois, mandatory in its provisions, and directing a flow of 800,000 cubic feet of water per minute; and this law is supplemented by the permit of the United States Government, under which this channel was opened, providing that if the current should become unreasonably obstructive to navigation, the War Department reserves the right at any time to close the Channel or modify the discharge. This right is fully vested in the War Department under the laws of Congress giving the War Department control of navigable streams.

On the other hand, is the law of the State of Illinois and of the Sanitary District, providing that there can be levied a tax of but one-half of one per cent per annum for the corporate purposes of this District, and that levy is utterly inadequate to meet the expenditures necessitated to carry out the other provision of the same law, requiring a flow of 800,000 cubic feet of water per minute under such conditions as will permit navigation and commerce to thrive at this, the third largest port of the world.

Chairman Carter of the Finance Committee on subsequent occasions informed the Citizens' Committee at length as to the exact condition of the finances of the Sanitary District, and submitted the following as the resources of the Sanitary District from January 2, 1901, to January 1, 1903:

#### JANUARY 2, 1901, TO JANUARY 1, 1903.

##### RESOURCES.

Cash on hand Jan. 2, 1901.....	\$ 1,831,174 53
Tax Account (Levy $\frac{1}{2}$ of 1 Per Cent)—	
1900—\$1,300,000, less costs, etc.....	\$ 1,225,000 00
1901—\$1,300,000, less costs, etc.....	1,225,000 00
1902—\$1,300,000, 75 per cent in warrants.....	975,000 00
	3,425,000 00
Bond Account—	
October 1, 1902.....	\$ 100,000 00
November 1, 1902.....	100,000 00
January 1, 1903.....	480,000 00
	680,000 00
Sundries due from contractors .....	16,180 41
Total.....	\$ 5,952,354 94

##### LIABILITIES.

Departmental expenses, two years.....	\$ 400,000 00
Bridgeport pumps, two years.....	80,000 00

Warrants outstanding (tax levy).....	\$	425,389 87	
Interest on tax warrants (1899, 1900, 1901).....		60,000 00	
Construction Account, present contracts .....		475,377 81	
Capitalization and maintenance of bridges.....		196,485 70	
Bond Account—			
Principal due July 1, 1901.....	\$	200,000 00	
Principal due November 1, 1901.....		100,000 00	
Principal due January 1, 1902.....		480,000 00	
Principal due July 1, 1902.....		200,000 00	
Principal due October 1, 1902.....		125,000 00	
Principal due November 1, 1902.....		100,000 00	
Principal due January 1, 1903.....		480,000 00	
			1,685,000 00
Interest due April 1, 1901.....	\$	47,500 00	
Interest due May 1, 1901.....		30,000 00	
Interest due July 1, 1901.....		237,975 00	
Interest due October 1, 1901.....		47,500 00	
Interest due November 1, 1901.....		30,000 00	
Interest due January 1, 1902.....		233,225 00	
Interest due April 1, 1902.....		47,500 00	
Interest due May 1, 1902.....		27,500 00	
Interest due July 1, 1902.....		222,175 00	
Interest due October 1, 1902.....		47,500 00	
Interest due November 1, 1902.....		27,500 00	
Interest due January 1, 1903.....		217,425 00	
Interest due April 1, 1903.....		45,000 00	
Interest due May 1, 1903.....		25,000 00	
Interest due July 1, 1903.....		206,375 00	
			1,492,175 00
	\$		4,814,428 36
Balance available.....	\$		1,137,926 56

After a prolonged discussion of the situation on December 14, 1900, the Citizens' Committee finally appointed an executive or sub-committee, for the purpose of making recommendations to the Main Committee.

On January 8, 1901, this Committee met, and the members thereof made conflicting reports to the Main Committee at a session held in the Board Rooms of the Sanitary District. These reports were fully discussed, as well as certain amendments suggested thereto, and the following was finally adopted as the expression and recommendations of the Citizens and representatives of the various clubs, associations, boards and civic organizations summoned by the Sanitary District to make a public expression of their views upon the present situation:

*"To the General Committee Representing Citizens of Chicago in the Matter of Work and Finance of the Sanitary District of Chicago:*

GENTLEMEN—The undersigned mem-

bers of this Committee, having in mind the importance and magnitude of the questions involved touching the matters referred to this Committee by the Sanitary District, beg leave to submit the following suggestions:

"Additional legislation should not be asked and additional expense should not be incurred for work not now under contract by the Sanitary District, until some comprehensive and well considered plan has been matured in harmony with the present Sanitary District Law and with due regard for the harbor facilities of the Chicago River and our shipping and business interests, and which will be commensurate with the present needs and the future growth of our city. We are of the opinion that with the funds available for the next two years, as the law now stands, the first duty of the Sanitary District is to remove the center pier bridges from the Chicago River and replace them with bascule bridges, provided that when such bascule bridges are constructed it is done on lines fully in accord with any plans for widening and deepening the river that may be de-

terminated as necessary for navigation and sanitation.

"We are also of the opinion that the most serious obstruction to the navigation of the river is the Washington Street bridge and that its immediate removal is imperative. The loss to Chicago and to the commerce of the country is much greater in a single month than would be the cost of a new bascule bridge, and the City of Chicago and the Sanitary District should at once co-operate for the removal of said bridge and the construction of a new bascule bridge in its place.

"Any broad plan covering the entire subject matter should interfere with the navigation of the Chicago River as little as practicable while changes and improvements are being made; should consider the question of widening and deepening the Chicago River from an engineering, legal and financial standpoint, covering in this connection the question of present and future dock lines along the river, the question of the width of the river at the bridges when the new bascule bridges are erected, the question of the necessity of by-passes in order to obtain the necessary flow of water, and should especially consider the legal and financial questions connected with the lowering of the present tunnels. Such plan should also cover the question as to whether territory in the City of Chicago and County of Cook which will ultimately drain its sewage into the Sanitary District Canal should have additional legislation in order to facilitate and hasten this result.

"Any plan proposed should be of such a character that all interest involved, especially those of the Sanitary District, the City of Chicago, State of Illinois and the United States Government, could work in the most complete harmony to bring about the desired end.

"We suggest that the best method of bringing about as quickly as possible a practical and feasible plan covering all of these points will be the appointment by the Trustees of the Sanitary District of an expert commission or Committee of five, made up of engineers and lawyers familiar with the Sanitary District Law and with the subject of the Sanitary relief of Chicago, and who are not connected with either the Sanitary District, the City of Chicago, the State or National Government; that as consulting associates on this Committee there should be appointed as follows: By the permission of the Secretary of War, the officer in charge of this river

and harbor district; by the City of Chicago, the Superintendent of Public Works and the Corporation Counsel; by the State Board of Health and by the Health Department of the City of Chicago, one representative each; by the Sanitary District, the Chief Engineer, the General Counsel and the Chairman of the Finance Committee, by the Chicago Board of Trade, Chicago Real Estate Board and The River Improvement Association, one representative each.

"It is assumed that the members of the Committee of Five will be compensated by the Sanitary District, and that they will perform the chief labor in preparing a report; but that the consulting associates who represent the official agencies that are expected to co-operate shall serve without pay and shall sign said report in their capacity as consulting associates.

"That said Committee so organized shall give a hearing to any organization or body of citizens interested in any of the questions which come properly within the scope of the work under consideration.

"Such Committee should in their report give a definite, detailed statement of the cost of the work proposed, with a carefully considered report upon all legislation needed; a full discussion of all the questions herein suggested, carefully defining the proper relation of the several agencies that should co-operate, and recommend the order in which the work should be carried on, so that it could be readily decided from a study of the report itself whether any or all of the work proposed should be undertaken, and if so undertaken, the best plan for execution with the least possible expense.

"Understanding that the necessary data is now in the possession of the Sanitary District, or can be readily obtained, it is believed that it is practicable to prepare and submit such report to the Sanitary District by the first of March next."

I desire, in pursuance of the action taken by the General Citizens' Committee to submit the above recommendations to your Honorable Body as a fair expression of the public sentiment of this community, and to request that the same be given immediate consideration.

Respectfully submitted,

(Signed)

ALEX. J. JONES.

President.

Mr. Braden, seconded by Mr. Legner,

moved that the message be referred to the Committee on Engineering, with directions to report back immediately.

The motion prevailed unanimously and it was so ordered.

#### MONTHLY REPORT FROM THE TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of December, 1900, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

##### *Receipts.*

Balance on hand at date of last report.....	\$ 2,840,086 24
From County Treasurer, Sanitary District Tax Account.....	\$ 556,507 60
From A. R. Porter, Clerk, Land Account.....	120 00
From A. R. Porter, Clerk, Account Police Department.....	100 50
From A. R. Porter, Clerk, " Law Department.....	4 00
From A. R. Porter, Clerk, " Chas. C. Gilbert, Attorney.....	2,965 43
From A. R. Porter, Clerk, " Toledo Bridge Company.....	1,869 16
From A. R. Porter, Clerk, " A. R. Porter, Clerk.....	25,000 00
From A. R. Porter, Clerk, General Account.....	8 00
From Chicago National Bank, Interest Account.....	1,285 70
From Illinois Trust and Savings Bank, Interest Account.....	1,300 46
From Equitable Trust Company, Interest Account.....	339 70
From Home Savings Bank, Interest Account.....	339 72
Total cash received for month.....	580,934 77
	<u>\$ 2,935,871 01</u>

##### *Disbursements.*

Maintenance Account.....	\$ 7,844 60
Clerical Department.....	2,506 16
Police Department.....	3,263 35
Treasury Department.....	541 66
Engineering Department.....	16,147 46
Construction Account.....	284,117 27
Law Department.....	7,580 20
Land Account.....	27,085 55
General Account.....	12,939 98
Bond Account.....	480,000 00
Bond Interest Account.....	249,025 00
P. C. C. & St. L. R. R. Co.....	378 00
Chicago Junction Railway Company.....	189 00
Chicago Terminal Transfer Railroad Company.....	189 00
James Todd, Attorney.....	2,000 00
Tax Warrants Paid, Levy 1899.....	15,027 44
Interest Paid on Tax Warrants, Levy 1899.....	591 35
Total cash disbursed.....	\$ 1,108,826 02
Balance this date, in banks as per schedule endorsed hereon.....	1,826,544 99
	<u>\$ 2,935,871 01</u>

##### *Schedule.*

Chicago National Bank.....	\$ 985,650 56
Illinois Trust and Savings Bank.....	414,955 65
Equitable Trust Company.....	200,000 00
Home Savings Bank.....	200,000 00
National Bank of Illinois.....	25,938 78
Total.....	<u>\$ 1,826,544 99</u>

CHICAGO, January 3, 1901.

F. M. BLOUNT, *Treasurer.*  
By S. P. BLOUNT, *Assistant Treasurer.*

REPORT AND JOINT OPINION IN REFERENCE TO CLAIM OF THE OTTAWA GAS LIGHT AND COKE COMPANY.

Mr. Legner, Chairman of the Judiciary Committee, presented the following report and joint opinion of the Chief Engineer and Attorney of the District:

"CHICAGO, January 8, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In the matter of the claim of the Ottawa Gas Light and Coke Company for damages alleged to have been sustained by reason of floods in the Illinois River, precipitated by the discharge from the Sanitary Channel, presented to the Board and referred to the Committee on Judiciary at the meeting held December 5, 1900, (page 6899 of the Proceedings) your Committee herewith presents the joint opinion of the Chief Engineer and Attorney of the District to your Committee, advising that the Sanitary District is not liable to the said Ottawa Gas Light and Coke Company for damages, as above stated.

Your Committee, therefore, is of the opinion that the District is not liable, and recommend that said claim be placed on file.

Respectfully submitted,

(Signed) WM. LEGNER,  
*Chairman.*  
Z. R. CARTER,  
WM. H. BAKER,  
FRANK X. CLOIDT,  
FRANK WENTER,  
THOMAS A. SMYTH,  
*Committee on Judiciary."*

(Two enclosures.)

The following is the joint opinion of the Chief Engineer and Attorney of the District.

"CHICAGO, January 2, 1901.

*To the Committee on Judiciary.*

GENTLEMEN—Taking up the claims of the Ottawa Gas Light and Coke Company for damage to gas plant in March, 1900, alleged to have resulted from floods in the Illinois River, precipitated by the discharge from the Sanitary Channel, we have to report as follows:

At the time this flooding occurred, between March 10th and 12th, the maximum height 40.557 (-110.948 Chicago

datum) feet above Hennepin datum as fixed by mark on boat house made by Mr. Horace Hull, elevation determined by Mr. Cook of the United States Engineering Corps. At the time of this high water the Chief Engineer of this District was called on long distance telephone from Ottawa and asked to shut off the flow from the Sanitary Channel. The flow at the time was so small, averaging about 161,000 cubic feet per minute with no flood in the Desplaines, that the request was not granted.

We have data which appears to show that the high water in the Illinois River, at Ottawa, in May, 1892, reached a height of 40.8 above Hennepin datum.

The records of high water in the Desplaines River go to show that as much as 638,000 cubic feet per minute has passed through Joliet in May, 1892. These facts combine to demonstrate conclusively that the flow from the Sanitary Canal was not the cause of the flooding complained of by the Ottawa Gas Light and Coke Company.

Respectfully submitted,

ISHAM RANDOLPH,  
*Chief Engineer.*

JAMES TODD,  
*Attorney."*

Mr. Legner, seconded by Mr. Baker, moved that the report be adopted and the recommendations contained therein concurred in.

The roll being called, the motion was adopted.

Yeas—Messrs. Baker, Braden, Carter, Cloidt, Jones, Legner, Smyth and Wenter—Eight.

Nays—None.

COMMUNICATION IN REFERENCE TO THIRTY-NINTH STREET AND LAWRENCE AVENUE PUMPING STATIONS.

The Clerk presented and read a communication from Ricard O'S. Burke, Superintendent of Sewers, Chicago, requesting the return of specifications for the machinery for the Thirty-ninth Street and Lawrence Avenue Pumping Stations.

Mr. Braden, seconded by Mr. Carter, moved that the matter be referred to a special committee of three.

The motion prevailed unanimously and it was so ordered.

The President thereupon appointed Messrs. Braden, Cloidt and Carter as said Special Committee.

**STIPULATION IN CASE OF ROBERT LAW,  
ET AL.**

Under the head of new business, Mr. Legner, seconded by Mr. Carter, moved that the Attorney of the District be authorized to enter into a stipulation in the case of the Sanitary District of Chicago vs. Delaware, Lackawana and Western Railroad Company, Robert Law, et al., in the Circuit Court of Cook County, agreeing to the continued maintenance in its present efficiency, upon piles or such other material as will properly support the present approach from Eighteenth Street to the remainder of the property of the defendants involved in this proceeding, so much thereof as is affected by the works of this District; and that the District will not raise the grade, or make the same any more inconvenient for use than it is at the present time; that in the event of the District constructing a bridge at Eighteenth Street, the construction of which will interfere with the present approach to the property of said defendants, so as to render the same less inconvenient, or in any manner damage the said property, that the District will pay all such damage as may be occasioned by reason of the construction of said bridge and interference with said approach to said property.

The motion prevailed unanimously and it was so ordered.

**RECESS.**

Mr. Braden, seconded by Mr. Legner, moved that the Board now take a recess.

The motion prevailed unanimously and it was so ordered.

**REPORT RECOMMENDING APPOINTMENT  
OF A COMMISSION ON CHICAGO RIVER  
IMPROVEMENT.**

Upon reconvening, Mr. Wenter presented a report from the Committee on Engineering in reference to the message of the President on appointment of a commission on Chicago River Improvement.

The following is the report:

"CHICAGO, January 9, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering, to whom was referred the message of the President, transmitting to the Board a report of the Citizens' Committee recommending the appointment of a commission to take up such

questions as pertain to the plans adopted by the Sanitary District on April 11, 1900, in reference to the Chicago River and the improvements necessary to allow the legal flow of water through the Chicago River with the least possible interference to navigation; to take into account the present and future needs of the Sanitary District for furnishing the maximum flow of water under the Sanitary District Act, including the volume to be furnished by the Thirty-ninth Street conduit; to consider the removal of center-pier bridges, the building of bascule bridges, the widening of the river, the building of by-passes, establishing dock lines, and the lowering of the tunnels in the Chicago River.

Your Committee hereby approves the recommendations of the report of the Citizens' Committee this day transmitted, and recommends that the same be printed in the Proceedings of your Honorable Body.

Respectfully submitted,

ALEX. J. JONES,

Z. R. CARTER,

FRANK WENTER,

FRANK X. CLOIDT,

WM. LEGNER,

WM. H. BAKER,

THOMAS A. SMYTH,

*(Committee on Engineering.)*"

Mr. Wenter, seconded by Mr. Cloidt, moved that the report be adopted, and the recommendations contained therein, concurred in.

The roll being called the motion was adopted.

*Yeas*—Messrs. Baker, Carter, Cloidt, Jones, Legner, Smyth and Wenter—Seven.

*Nays*—None.

*Excused and not voting*—Mr. Braden—One.

**RESOLUTION APPOINTING A SPECIAL  
COMMISSION OF EXPERTS ON CHICAGO  
RIVER IMPROVEMENT.**

Mr. Smyth presented the following resolution:

WHEREAS, It is necessary that additional and adequate provision should be made for the flow of a sufficient quantity of water through the Chicago River into the drainage channel with the least possible interference with navigation on

the river, and any work done in connection therewith should be done as a part of a complete comprehensive plan; and

WHEREAS, This Board of Trustees did on the 11th day of April, A. D. 1900, outline and adopt a general plan to meet the above conditions and requirements; and

WHEREAS, It is important that these plans shall receive the approval of the best expert and legal authority before being finally consummated; therefore, be it

*Resolved*, That the Board of Trustees hereby appoint Orrin N. Carter, John P. Wilson, Lyman E. Cooley, Ambrose V. Powell and Louis P. Friedstedt as a commission of experts to consider what improvements or changes should be made in the plans of the Sanitary District for the improvement of the Chicago River to allow the necessary flow of water with the least possible interference to navigation practicable, taking into account the present and future needs of the Sanitary District for furnishing the maximum flow of water under the Sanitary District Act, including the volume to be furnished by the Thirty-ninth Street conduit, including the removal of center pier bridges, building bascule bridges, widening the river, building bypasses, establishment of dock lines and lowering the tunnels in the Chicago River. The commission hereby appointed is directed to also fully consider these points from a legal and financial standpoint, and make comprehensive report on or before March 1, 1901, to the Board covering all of the above matters and presenting a complete plan for all of the improvements above mentioned.

*Resolved further*, That this Board of Trustees respectfully invites the cooperation, as consulting associates on said Committee, of the following officials and representatives:

By the permission of the Secretary of War, the officer in charge of this river and harbor district; by the City of Chicago, the Superintendent of Public Works and the Corporation Counsel; by the State Board of Health and by the Health Department of the City of Chicago, one representative each; by the Sanitary District, the Chief Engineer, the General Counsel and the Chairman of the Finance Committee; by the Chicago Board of Trade, Chicago Real Estate Board and the River Improvement Association, one representative each.

Mr. Smyth, seconded by Mr. Legner, moved the adoption of the resolution.

The roll being called, the resolution was adopted.

*Yeas*—Messrs. Baker, Carter, Clويدt Jones, Legner, Smyth and Wenter—Seven.

*Nays*—None.

*Excused and not voting*—Mr. Braden—One.

#### ADJOURNMENT.

On motion of Mr. Smyth, seconded by Mr. Clويدt, the Board adjourned.

*A. R. Porter.*  
CLERK



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

JANUARY 16, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Thirteenth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security building. Wednesday, January 16, 1901, at 2:00 o'clock P. M.

In the absence of the President, the Vice-President, Mr. Baker, called the Board to order.

On roll-call Messrs. Baker, Braden, Cloidt, Smyth and Wenter—five members—were present, Mr. Legner arriving subsequently.

**ANNUAL REPORT FROM POLICE DEPARTMENT.**

The Clerk presented the annual report

from the Police Department, being for the year ending December 31, 1900, which was, by unanimous consent, ordered printed and placed on file.

The following is the report:

“CHICAGO, January 9, 1901.

*To the Honorable, the Board of Trustees of  
the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to submit my annual report for the year ending December 31, 1900.

It becomes my duty to present to your Honorable Body, at this time, a report of the administration and work of the Police Department of the Sanitary District for the year just ended. We have four regular police stations located along the line of the Canal; one at Forty-eighth Street, one at Summit, one at Lockport, and one at Joliet. We have two policemen at the Dis-

trict's warehouse, and one at the Bridgeport Pumping Works. We also had three policemen engaged during the summer months, in boats, removing dead dogs and other animals, together with poultry, game and other putrid matter that evidently found its way into the Canal from Randolph and South Water Streets. They also removed seven dead human bodies from the Canal. There are several excursion boats that ply the Canal during the summer months, all of which sell liquors, and some are inclined to gambling and other depraved and immoral practices. We also regulate the speed of boats in the clay cuts to not exceed eight miles per hour. There are five gambling houses or pool rooms established along the line of the Canal that run alternatively. One is situated in Romeo, Will County; one at Byronville, Du Page County; one at Gary, and two west of Forty-eighth Street in Cook County. Some of them are located within 150 feet of, and none of them farther than 700 feet from the Canal.

At Santa Fe Picnic Park, eighteen miles out and adjoining the District's land, they hold at least fifty picnics a year with a large attendance of Chicago people. These picnics attract a number of vicious characters such as shell workers, shoestring gamblers and hold-up men. The District owns both sides of the Desplaines River frontage which is quite attractive to the picknickers, and those vicious sharks squat on the District land and ply their nefarious games, and on two occasions they held up respectable people and robbed them in broad daylight and defied the local authorities. As it is outside the Township of Willow Springs, we had to drive them off on several occasions.

During the year we had but five strikes—at McArthur Bros. & Winston's, Bridgeport Locks and the Telephone Line erected by the District—and in all cases the prompt action of the police force prevented any of them assuming such proportions as to cause any delay in the work, for they were checked in their incipency. Our relations with the authorities in the towns along the Canal are harmonious. We cooperate with them and aid them in the maintenance of law and order. The District owns seven or eight thousand acres of land, lying in three counties and ten

townships, which need to be constantly looked after, as none of it is fenced in. Squatters and unreliable parties are continually trying to settle thereon, while others attempt to cut the timber and remove the black earth to their own lands near by. One farmer named Crug, who owns 180 acres adjacent to Section 13 in Will County, fenced in fifty acres of the District's land. We had the fence removed promptly. Two others, Allen and Norton, herd sheep on the land and all of the farmers whose farms adjoin the District land use it for grazing purposes for their stock. Railroads paralleling and crossing the District's property are inclined to use the rock and earth for the purpose of raising and ballasting their respective roads. We are notified by the Thistles Commissioners of the respective townships on the right of way of the Canal to remove the thistles under penalty. We comply by having the police do the work.

A large number of visitors and sight-seers visit the Controlling Works during the year, particularly in the summer months, there being a daily attendance of from 2,000 to 3,000 persons and from 800 to 400 vehicles which makes it difficult to handle because of the irregular construction of the narrow bridges that have recently been constructed, they being only 12 and 14 feet wide, respectively, and the narrowest one, together with its approaches, is over 1,500 feet long, making it impossible for rigs to pass each other when going in opposite directions, and therefore requiring one and sometimes two policemen seven days in the week.

Twenty-eight men comprised our police force during the year. One of them, George DeGan, became slightly demented and wandered away and got drowned. In October, by order of the Board, the force was reduced to eighteen men. On December 31, 1900, we abandoned the police stations at Summit and Joliet and discontinued the police service thereat. In 1896 and 1897 there were over one hundred squatters on the District property without any permission or authority. The police removed them all except three, one in Joliet and two in Chicago. We have rented to reliable parties several tracts of good tillable land for \$3.50 per acre per annum. This land the District has no

immediate use for, and the leases are made yearly.

The following is a summary of the work done by the Police Department during the year 1900:

Arrests.....	187
Fines imposed.....	\$1,880 00
To jail for non-payment of fine.....	5
To Bridewell.....	8
Held to grand jury.....	4
Dead cared for.....	11
Injured cared for.....	21
To County Hospital.....	4
To hospitals other than County.....	5
Insane cared for.....	2
Lost children returned to homes.....	8
Flosters found.....	7
Live animals removed from Canal.....	3
Dead dogs removed from Canal.....	142
Rescued from drowning.....	5
Killed on works.....	1
Drowned.....	8

*Arrests Classified.*

Assault and battery.....	8
Assault with intent to kill.....	4
Burglary.....	2
Disorderly conduct.....	58
Inmates house of ill-fame.....	19
Keepers house of ill-fame.....	7
Larceny.....	25
Selling liquor without license.....	4
Shooting in village limits.....	3
Swimming in Main Channel.....	5
Vagrancy.....	2
Other offenses.....	5

Since December, there has been thirty miles of double copper wire between Robey Street and the Controlling Works, which is also under the care of the police.

Respectfully submitted,

(Signed) E. J. COEN,  
Marshal."

**MONTHLY REPORT FROM LAW DEPARTMENT.**

The Clerk presented a report from the Law Department for the month of December, 1900. By unanimous consent the same was ordered printed and placed on file.

The following is the report:

"CHICAGO, January 15, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the re-

port of the Law Department for the month of December, 1900:

The following are the expenses and the disbursements:

**SALARIES.**

Attorneys.....	\$ 818 89
Office force.....	898 33
Joliet roll.....	478 88
	<hr/>
	\$ 1,690 55
Court costs.....	\$ 1,500 78
Land Account.....	23,385 55
Legal services.....	700 64
General expenses.....	274 58
Printing.....	68 80
	<hr/>
	\$ 25,875 80
	<hr/>
	\$ 27,565 85

The following cases have been commenced, in which the District is a party:

Daniel D. Streeter and William Kenefick, co-partners as Streeter & Kenefick, vs. The Sanitary District of Chicago, General No. 28754, in the Circuit Court of the United States. This is an assumpsit suit for \$125,000 for extras.

The Sanitary District of Chicago, appellant, vs. The City of Joliet, appellee, in the Supreme Court of Illinois. This is a petition for a special assessment of certain property belonging to appellant for benefits resulting from the construction of certain sewers. Abstracts and briefs have been filed on behalf of the District.

Thomas Gahan and Thomas Byrne, co-partners, doing business as Gahan & Byrne, vs. The Sanitary District of Chicago, General No. 212391, in the Circuit Court of Cook County. This is an assumpsit suit for \$50,000 for extras on Section 18.

Jacob Adler vs. The Sanitary District, General No. 18229, in the Circuit Court of Will County. This is a suit for \$6,000 for damages to certain premises caused by overflow.

The following proceedings were had in the cases mentioned:

In the case of the Canal Commissioners vs. The Sanitary District, Judge Dunne rendered a decision sustaining the material contentions of the complainant and granting a mandatory injunction requiring the Sanitary District to operate the Bridgeport Pumping Works from April 1st to November 15th of this year. An appeal was prayed to the Appellate Court on behalf of

the District and to the Supreme Court on behalf of the Canal Commissioners.

In the case of Charles Goerner vs. The Sanitary District, both plaintiff and defendant withdrew their motions for a new trial and a judgment was entered upon the verdict for \$800.00 and costs, which was satisfied in full.

In the case of The Sanitary District of Chicago vs. Hoynes et al., Gen. No. 206767, in the Circuit Court of Cook County, a judgment was entered by agreement upon the verdict for \$18,854.30, which was satisfied.

In the case of The Sanitary District vs. Louis Hutt, Gen. No. 218463, Circuit Court of Cook County, the jury returned a verdict for \$9,181.25, upon which the judgment was rendered and satisfied.

In the case of D. C. Deegan vs. The Sanitary District, before Justice Geo. H. Woods, a judgment was rendered in favor of the plaintiff for \$27.30.

In the case of Mary T. Burke vs. The Chicago National Bank et al., No. 9117 in the Appellate Court, the decree of the Circuit Court was reversed and remanded.

In the case of Carl Moll vs. The Sanitary District, an order was entered sustaining the demurrer of the Sanitary District, the plaintiff standing by his demurrer and appealing to the Appellate Court.

In the case of McArthur Bros. vs. The Sanitary District the demurrer of the Sanitary District was argued before Judge Ball and taken under advisement.

The case of John H. Bradshaw vs. The Sanitary District in the Supreme Court of Illinois, involving the power of the Sanitary District to negotiate the last issue of bonds was dismissed on stipulation. The attention of the Department, in addition to the above cases and items, has been given to the preparation for trial of certain pending suits, the drafting of certain opinions and the regular routine work of the office.

Respectfully submitted,

(Signed) JAMES TODD,  
Attorney."

MONTHLY REPORT FROM THE ENGINEERING DEPARTMENT.

The Clerk presented the report from the Engineering Department for the month of

December, 1900. By unanimous consent the same was ordered printed and placed on file.

The following is the report:

"CHICAGO, January 14, 1900.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith present the report of the Engineering Department for the month of December, 1900, giving the detailed operations of same.

The value of construction work done during the month was \$193,663.40, divided as follows: Main Channel, \$24,297.99; bridges, \$169,306.66; general, \$57.75. Vouchers were issued on this account to the amount of \$188,586.57.

The engineering expenses for the month were \$7,153.44, divided as follows: Salaries, \$6,294.08; supplies, etc., \$859.36. The expenses at the Bridgeport Pumping Works were \$3,486.42, divided as follows: Salaries, \$1,376.94; supplies, etc., \$2,109.48. Details of above figures are given in tabulated statements submitted herewith.

#### *Division of Construction.*

*Chicago River*—The contractor for the dredging of the river excavated 31,600 cubic yards of material between Main and Halsted Streets and spoiled same on the Lake Front Park.

The surveys along the river were discontinued on the 15th, at which time the work was completed from Twelfth Street to Twenty-second Street.

The counter-weight pits in the west abutment of the Taylor Street Bridge were made water-tight during the month. Work of the same character was also being done on the east side. Platforms were built around the operating machinery on each side of the river, and extra knee-bracing was placed on each sidewalk column in order to give additional strength to same.

On the east side of the C. T. T. R. R. Co.'s Bridge, counterweight boxes and connections were placed and lowered into the pits. The back sections of each top chord, with connections to segmental girders, were placed. All of the above members were partially riveted. On the 28th, work was begun re-driving sheeting in coffer-dam, to enable the contractor to

pump out the counter-weight pits, to put in pipes to connect the two pits and to cut out the tunnel. On the west side, the concrete work was brought up to the stone line on the 6th, when the abutment was cleaned up of bracing, timber, etc., and 170 cubic yards of cut stone was laid.

*Section O*—Work on the erection of the Eight-track Bridge was carried on by a large force during the entire month, at the end of which all of the bridges were erected excepting the west Pan Handle span. The deck on the C. T. T. R. R. Co.'s Bridge was practically finished, and considerable work was done on the deck of the C. J. Cy. Co.'s Bridge. The last of the bolsters and shoes were set early in the month. All of the drilling and placing of dowels was finished early in the month.

The approaches to the Southwest Boulevard Bridge were repaired and put in good condition. A total of 845 cubic yards of macadam was placed and rolled.

A rip-rap wall 100 feet in length was placed on the south slope of this section just east of the Southwest Boulevard Bridge. The excavation was made by a dredge, and the stone was brought up from Lemont by boat and unloaded by means of a small derrick on a flat boat.

*Section K*—A force of from ten to fifty men worked during the entire month ballasting the track and laying steel on the Belt Railroad, and on the Santa Fe Railroad at the crossing, on account of the raise in grade of the approaches to the Belt Railway Company's new bridge.

From the 10th to the end of the month, the Green Dredging Company had a pile-driver outfit at work removing the temporary trestle formerly used to carry the Belt Railway Company's traffic.

*Section 15*—At the Controlling Works, the work done during the month, account water power development, and the status of affairs at the end of same was as follows: The concrete arch was completed as was also the back filling to same. The wheel pit tail race was completed and hole through wall made for small wheel, except for concreting. The wheels, etc., for power development arrived on the ground. The work that remains to be done is, placing of two large and one small wheel; setting of screens and special cof-

fer dam for use in cutting through windage basin wall, and the placing of concrete floor to wheel pit. The building for the protection of the machinery was not completed.

*Section 17*—The dredge excavated in the Upper Basin, between Jackson and Ruby Streets during the greater part of the month. Excavation was carried on between the Economy Light and Power Company's plant and the coffer dam, and the work completed to a point where the dredge could conveniently handle the balance of excavation. The boom north of Ruby Street was removed and anchored on the east side of the basin. A cable was passed through the anchor chains by means of which they can be readily raised. A number of trees near the north end of the section were removed from the Channel.

At the Economy Light and Power Company's plant, all of the waste gates but six were in position at the end of the month. This work should be completed early in January.

#### *General.*

*New Telephone System*—The telephone line was completed between Robey Street and Lockport in the early part of the month. One lineman was kept employed testing the line and repairing same where wire was stolen.

*Bridgeport Pumping Works*—Pumping was continued as usual up to the 18th when, by order of the President of the Board, pumping ceased and most of the force was laid off. A few men were kept until the end of the month dismantling the engines and preparing to lay up the plant for the winter.

*Warehouse at Robey Street*—A small force worked during the whole month overhauling the machinery stored in the place.

#### *Division of Designing and Drafting.*

The regular platting was continued on the Atlas of the right of way. Drawings were made for use in court in the law case. Specifications were prepared for the contemplated bridges across the Chicago River as follows: Canal Street, Main Street, Harrison Street and Ashland Avenue. The plans for the Main and Harrison Street Bridges were approved by the Bridge Engineer during the month.

*Division of Records.*

The work of this division for December was carried on in the usual manner.

I estimate the expenses of this department

for the month of January, 1901, will be \$100,000.00.

Respectfully submitted,

(Signed)

ISHAM RANDOLPH,

*Chief Engineer.*

# **SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—QUANTITIES.**

*Amount Done During December 1900.*

DESIGNATION.	Glacial Drift. Cu. Yds.	Solid Rock Cu. Yds.	Masonry and Concrete. Cu. Yds.
Chicago River.....	81,600		
Section 17.....	3,000	500	
C. T. T. R. R. Co.'s Bridge, Chicago River.....			170
Totals .....	84,600	500	170

# **SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—VALUES.**

*Amount Earned During December, 1900.*

DESIGNATION.	Main Channel.	Bridges.	General.	Totals.
Chicago River.....	\$11,732 57			\$ 11,732 57
Section O.....		\$ 941 51		941 51
Section K.....		884 40		884 40
Controlling Works, Section 15.....	7,396 28			7,396 28
Section 17.....	4,877 09			4,877 09
Section 18.....	402 05			402 05
Van Buren Street Approach Span, Chicago River.....		37 49		37 49
Taylor Street Bridge, Chicago River.....		250 86		250 86
C. T. T. R. R. Co.'s Bridge, Chicago River.....		51,598 25		51,598 25
Harrison Street Bridge, Chicago River.....		6,000 00		6,000 00
Main Street Bridge, Chicago River.....		6,000 00		6,000 00
Eight-Track Bridge, Chicago River.....		39,196 28		39,196 28
C. M. & N. R. R. Co.'s Bridge, Main Channel, Sec. N.....		4,589 10		4,589 10
Belt Ry. Co. of Chicago's Bridge, Main Channel, Sec. K.....		55,988 99		55,988 99
Willow Springs Bridge, Main Channel, Sec. 1.....		198 88		198 88
Lemont Road Bridge, Main Channel, Sec. 8.....		769 00		769 00
A. T. & S. F. Ry. Co.'s Bridge, Main Channel, Sec. 8.....		2,119 18		2,119 18
Bear Trap Dam Bridge, Sec. 15.....		732 72		732 72
Life saving apparatus.....			\$ 57 75	57 75
Totals.....	\$24,297 99	\$169,316 66	\$ 57 75	\$193,662 40

## SANITARY DISTRICT OF CHICAGO - ENGINEERING DEPARTMENT.

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF DECEMBER, 1900.

CLASSIFICATION.	ENGINEERING EXPENSES		Construc- tion.	BRIDGEPORT P. WORKS.	
	Salaries.	Supplies, Etc.		Salaries.	Supplies, Etc.
Borings and Test Pits.....	\$ 34.43	\$ 66.28			
Maps and Plans for General Use.....	386.86	4.93			
Chicago River Survey.....	3.50	39.36			
Chicago River Improvement.....	1,153.50	79.52	\$10,754.82		
Right of Way.....	290.70	2.94			
Flow Measurements.....	683.12	43.93			
Disposal Works and Joliet Project.....	1,108.90	293.92	12,814.63		
Lemont Road Permanent Bridge, Main Channel, Section 8.....			769.00		
A. T. & S. F. Ry. Co.'s Permanent Bridge, Main Channel and Track Deviation and Stevens Street Subway, Section 8.....		08	3,119.18		
Willow Springs Road Permanent Bridge, Main Channel, Section 1.....	100.00		198.88		
Belt Ry. Co. of Chicago's Temporary Bridge, Main Channel, Section K.....	190.43	6.40	884.40		
Belt Ry. Co. of Chicago's Permanent Bridge, Main Channel, Section K.....			55,988.99		
C. M. & N. R. Co.'s Permanent Bridge, Main Channel and Kedzie Avenue and Track Deviation, Section N.....			4,559.10		
Panhandle Temporary Bridge, Main Channel, Section O.....	200.00	4.00	204.00		
Panhandle Permanent Bridge, Main Channel, Section O.....	410.00	45.90	941.51		
Canal Street Bridge, Chicago River.....	85.00	10.30	80,125.24		
Taylor Street Bridge, Chicago River.....	183.00	1.00	95.80		
C. T. R. R. Co.'s Bridge, Chicago River.....	879.50	173.71	250.86		
Van Buren Street Approach Span, Chicago River.....			51,923.00		
Bear Trap Dam Bridge, Section 15.....	10.00		37.48		
Mortar, Sand and Cement Tests.....	283.75	87.69	732.72		
Photographs of Works.....	150.00	14.00			
Improvement of I. and M. Canal, between Bridgeport and Lockport.....		7.84			
State Street Bridge, Chicago River.....	10.00	64	10.64		
Randolph Street Bridge, Chicago River.....	48.15	1.53	11.53		
Polk Street Bridge, Chicago River.....	10.00	35	48.15		
Eighteenth Street Bridge, Chicago River.....	10.00	10.90	10.85		
Main Street Bridge, Chicago River.....	59.15		20.90		
Ashland Avenue Bridge, Chicago River.....	51.70		59.15		
California Avenue Bridge, Main Channel, Section O.....	10.00		51.70		
Life Saving Apparatus.....			10.00		
Bridgeport Pumping Works.....			57.75		
<b>Totals.....</b>	<b>\$6,394.08</b>	<b>\$ 889.85</b>	<b>\$ 7,153.44</b>	<b>\$ 1,376.94</b>	<b>\$ 2,109.48</b>
				<b>\$ 1,376.94</b>	<b>\$ 2,109.48</b>
					<b>\$ 3,486.42</b>

**REQUISITION.**

The Clerk presented the following requisition:

No. 600—From Engineering Department (for supplies for the quarter ending March 31, 1901).....\$226 82

Mr. Wenter, seconded by Mr. Braden, moved that said requisition be referred to the Committee on Engineering with power to act.

The roll being called it was so ordered.

*Yeas*—Messrs. Baker, Braden, Cloldt, Legner, Smyth and Wenter—six.

*Nays*—None.

**PROPOSITION TO RENT A TEN-ACRE TRACT OF LAND LOCATED IN THE TOWN OF LYONS,**

The Clerk presented a communication from Leo Gotz, offering to rent ten (10) acres of the property of the District located in the Town of Lyons, being that part of the N. E.  $\frac{1}{4}$  of Sec. 12, T. 88 N., R. 12 E. of the 8rd P. M., lying north and east of the Desplaines River and south of the southerly line of the right of way of the Chicago, Santa Fe and California Railway Company, from March 1, 1901, to February 28, 1902, at an annual rental of \$85.00.

Mr. Braden, seconded by Mr. Wenter, moved that the communication be referred to the Committee on Finance.

The motion prevailed unanimously and it was so ordered:

**PRESENTATION OF BIDS FOR SUB AND SUPERSTRUCTURES OF BRIDGES CROSSING THE CHICAGO RIVER AT CANAL, HARRISON AND MAIN STREETS AND ASHLAND AVENUE.**

The Vice-President announced that, in conformity with the advertisement inviting proposals for sub and superstructures of bridges crossing the Chicago River at Canal, Harrison and Main Streets and Ashland Avenue, in the City of Chicago, duly published, giving sixty (60) days' notice, as required by the Sanitary District Act, and in accordance with the Board's order of October 24, 1900, to readvertise for proposals for the erection of the sub and superstructure of the Canal Street Bridge, the Board would now proceed to open bids received by the Clerk in response to said advertisement.

The Clerk then proceeded to open the bids as shown hereafter.

At the conclusion of the reading of the bids, Mr. Wenter, seconded by Mr. Cloldt, moved that the bids just received be compiled, summarized and tabulated by the Chief Engineer and referred to the Committee on Engineering.

The motion prevailed unanimously and it was so ordered.

The following is the schedule of bids received for erecting the sub and superstructures of bridges crossing the Chicago River at Canal, Harrison and Main Streets, and Ashland Avenue:



**SCHEDULE OF BIDS FOR SUPERSTRUCTURES OF BRIDGES CROSSING THE  
CHICAGO RIVER AT CANAL, HARRISON AND MAIN STREETS  
AND ASHLAND AVENUE, IN THE CITY OF CHICAGO.**

*Bids Opened January 16, 1901.*

No. of Bid as Received.	NAME AND ADDRESS OF BIDDER.	Bridges.	Amount Deposited With Bid.
1	The Toledo Bridge Company, Toledo, O.....	Canal Street.....	\$3,000 00
2	The King Bridge Company, Cleveland, O.....	Canal Street.....	3,000 00
3	Illinois Bridge Company, Chicago, Ill.....	Canal Street.....	3,000 00
4	The Massillon Bridge Company, Massillon, O.....	Canal Street.....	3,000 00
5	C. L. Strobel, Chicago, Ill.....	Canal Street.....	3,000 00
6	The Phoenix Bridge Company, Philadelphia, Pa.....	Canal Street.....	3,000 00
7	Indiana Bridge Company, Muncie, Ind.....	Canal Street.....	3,000 00
8	Hansell-Elcock Foundry Company, Chicago, Ill.....	Canal Street.....	3,000 00
9	Milwaukee Bridge and Iron Company, Milwaukee, Wis.	Canal Street.....	3,000 00
10	American Bridge Company, Chicago, Ill.....	Canal Street.....	3,000 00
1	Toledo Bridge Company, Toledo, O.....	Harrison Street..	\$3,000 00
2	The King Bridge Company, Cleveland, O.....	Harrison Street..	3,000 00
3	C. L. Strobel, Chicago, Ill.....	Harrison Street..	3,000 00
4	Milwaukee Bridge and Iron Company, Milwaukee, Wis.	Harrison Street..	3,000 00
5	American Bridge Company, Chicago, Ill.....	Harrison Street..	3,000 00
1	The Toledo Bridge Company, Toledo, O.....	Main Street.....	\$3,000 00
2	The King Bridge Company, Cleveland, O.....	Main Street.....	3,000 00
3	C. L. Strobel, Chicago, Ill.....	Main Street.....	3,000 00
4	Milwaukee Bridge and Iron Company, Milwaukee, Wis.	Main Street.....	3,000 00
5	American Bridge Company, Chicago, Ill.....	Main Street.....	3,000 00
1	The Toledo Bridge Company, Toledo, O.....	Ashland Avenue.	\$3,000 00
2	The King Bridge Company, Cleveland, O.....	Ashland Avenue.	3,000 00
3	The Massillon Bridge Company, Massillon, O.....	Ashland Avenue.	3,000 00
4	C. L. Strobel, Chicago, Ill.....	Ashland Avenue.	3,000 00
5	Indiana Bridge Company, Muncie, Ind.....	Ashland Avenue.	3,000 00
6	Milwaukee Bridge and Iron Company, Milwaukee, Wis.	Ashland Avenue.	3,000 00
7	American Bridge Company, Chicago, Ill.....	Ashland Avenue.	3,000 00

**SCHEDULE OF BIDS FOR SUBSTRUCTURES OF BRIDGES CROSSING THE  
CHICAGO RIVER AT CANAL, HARRISON AND MAIN STREETS  
AND ASHLAND AVENUE, IN THE CITY OF CHICAGO.**

*Bids Opened January 16, 1901.*

No. of Bid as Received.	NAME AND ADDRESS OF BIDDER.	Bridges.	Amount Deposited With Bid.
1	The George W. Jackson Construction Co., Chicago, Ill.	Canal Street.....	\$2 000 00
2	Thomas Phee, Chicago, Ill.....	Canal Street.....	2,000 00
3	James A. Sackley, Chicago, Ill.....	Canal Street.....	2,000 00
4	Lydon & Drews Company, Chicago, Ill.....	Canal Street.....	2,000 00
5	The Fitzsimons & Connell Company, Chicago, Ill.....	Canal Street.....	2,000 00
1	The George W. Jackson Construction Co., Chicago, Ill.	Harrison Street..	\$2,000 00
2	Thomas Phee, Chicago, Ill.....	Harrison Street..	2,000 00
3	Lydon & Drews Company, Chicago, Ill.....	Harrison Street..	2,000 00
4	The Fitzsimons & Connell Company, Chicago, Ill.....	Harrison Street..	2,000 00
1	The George W. Jackson Construction Co., Chicago, Ill.	Main Street.....	\$2,000 00
2	Thomas Phee, Chicago, Ill.....	Main Street.....	2,000 00
3	James A. Sackley, Chicago, Ill.....	Main Street.....	2,000 00
4	Lydon & Drews Company, Chicago, Ill.....	Main Street.....	2,000 00
5	John P. Agnew, Chicago, Ill.....	Main Street.....	2,000 00
6	William M. Crilly, Chicago, Ill.....	Main Street.....	2,000 00
7	The Fitzsimons & Connell Company, Chicago, Ill.....	Main Street.....	2,000 00
1	The George W. Jackson Construction Co., Chicago, Ill.	Ashland Avenue.	\$2,000 00
2	Thomas Phee, Chicago, Ill.....	Ashland Avenue.	2,000 00
3	James A. Sackley, Chicago, Ill.....	Ashland Avenue.	2 000 00
4	Lydon & Drews, Chicago, Ill.....	Ashland Avenue.	2,000 00
5	Page & Shnoble, Chicago, Ill.....	Ashland Avenue.	2,000 00
6	John P. Agnew, Chicago, Ill.....	Ashland Avenue.	2,000 00
7	William M. Crilly, Chicago, Ill.....	Ashland Avenue.	2,000 00
8	The Fitzsimons & Connell Company, Chicago, Ill.....	Ashland Avenue.	2,000 00

SANITARY DISTRICT OF CHICAGO—BIDS IN DETAIL FOR SUPERSTRUCTURE FOR LIFT BRIDGE ACROSS THE CHICAGO RIVER AT  
CANAL STREET (WITH BY-PASS).

*In Order of Magnitude—Lowest Bid First—Opened January 16, 1901.*

No. of Bid.	Order Received.	Order of Manufacture.	NAME OF BIDDER.	Lump Sum for Superstructure and Substituting Metal as Specified.	a— For Furnishing Pit Lining. Cents Per Lb.	b— For Extra Medium Soft Steel. Cents Per Lb.	c— For Extra Iron Castings. Cents Per Lb.	d— For Extra Cast Steel Track Plates. Cents Per Lb.	e— For Extra Steel and Machinery. Cents Per Lb.	f— For Extra Phosphor Bronze. Cents Per Lb.	g— For Extra Counter-weight Block Castings. Cents Per Lb.	h— For Extra Yellow Pine or Oak, Per 1,000 Ft. B. M. Dollars.	Total Extra Cost for Furnishing Counter-weight Pit Lining. 105,900 Lbs.
10	1		American Bridge Company, New York.....	\$ 71,100	\$ 03.96	\$ 03.75	\$ 03	\$ 07.50	\$ 010	\$ 50	\$ 01½	\$ 50 00	\$3,121 10
5	2		C. L. Strobel, Chicago, Ill.....	76,400	05	05	04½	10	10	50	02½	50 00	5,900 00
3	3		Illinois Bridge Company, Chicago, Ill.....	77,000	05	06	05	07½	10	50	02	42 00	5,900 00
8	4		Hansell Elcott Foundry Company, Chicago, Ill.....	77,500	03½	04½	03.85	07½	09½	48	01½	60 00	8,488 50
1	5		Toledo Bridge Company, Toledo, Ohio.....	79,500	02.85	04	04	05.50	08	40	08.25	40 00	2,808 70
2	6		The King Bridge Company, Cleveland, Ohio.....	81,000	03½	05½	04½	07	08	45	02	38 00	3,708 00
4	7		Massillon Bridge Company, Massillon, Ohio.....	82,400	04½	04½	06	10	10	50	02	40 00	4,761 00
9	8		Milwaukee Bridge & Iron Company, Milwaukee, Wis.	83,000	04½	04½	04½	08	08	50	02½	40 00	4,761 00
7	9		Indiana Bridge Company, Muncie, Ind.....	84,990	04	04	03	.....	10	50	08	50 00	4,382 00
6	10		Phoenix Bridge Company, Chicago, Ill.....	119,353	03½	06	06	09½	09½	25	03½	50 00	5,519 00

SANITARY DISTRICT OF CHICAGO—BIDS IN DETAIL FOR SUPERSTRUCTURE FOR LIFT BRIDGE ACROSS THE CHICAGO RIVER AT HARRISON STREET.

In Order of Magnitude—Lowest Bid First—Opened January 16, 1901.

No. of Bid.	Order Received.	Order of Magnitude.	NAME OF BIDDER.	a— Lump Sum for Superstructure and Substituting Metal as Specified.	b— For Furnishing Pile Linings. Per Lb. Cents	c— For Extra Medium Soft Steel. Per Lb. Cents	d— For Extra Iron Castings. Per Lb. Cents	e— For Extra Cast Steel Track Plates. Per Lb. Cents	f— For Extra Steel and Machinery Castings. Per Lb. Cents	g— For Extra Phosphor Bronze. Cents Per Lb.	h— For Extra Counter-Weight Block Castings. Per Lb. Cents	i— For Extra Yellow Pine or Oak. Per 1,000 Ft. B. M. Dollars.	Total Extra Cost for Furnishing Counter-weight Pile Linings. 95,660 Lbs.
10	1		American Bridge Company, New York.....	\$ 86,800	\$0 02.95	\$0 08½	\$0 03	\$0 07½	\$0 10	\$0 50	\$0 01½	\$ 50 00	\$2,881 87
5	2		C. L. Strobel, Chicago, Ill.....	97,980	05	05	04½	10	10	50	03½	50 00	4,782 50
9	3		Milwaukee Bridge & Iron Company, Milwaukee, Wis.	96,900	04½	04½	04½	08	08	50	02½	40 00	4,904 26
2	4		The King Bridge Company, Cleveland, Ohio.....	92,000	08½	05½	04½	07	08	45	62	38 00	3,347 75
1	5		Toledo Bridge Company, Toledo, Ohio.....	104,000	02.65	04	04	05½	08	40	02½	40 00	2,534 72

SANITARY DISTRICT OF CHICAGO—BIDS IN DETAIL FOR SUPERSTRUCTURE FOR LIFT BRIDGE ACROSS THE CHICAGO RIVER AT MAIN STREET.

In Order of Magnitude—Lowest Bid First—Opened January 16, 1901.

Order Received.	No. of Bid	NAME OF BIDDER.	Order of Magnitude.									
			a	b	c	d	e	f	g	h	i	j
			Lump Sum for Superstructure and Substituting Metal as Specified.	For Furnishing Plates Lining.	For Extra Medium Soft Steel, Cents Per Lb.	For Extra Iron Castings, Cents Per Lb.	For Extra Cast Steel Plates, Cents Per Lb.	For Extra Steel and Machinery, Cents Per Lb.	For Extra Phosphor Bronze, Cents Per Lb.	For Extra Counter-Weight Block Castings, Cents Per Lb.	For Extra Yellow Pine or Oak, Per 1,000 Ft. B. M.	Total Extra Cost for Purchasing Counter-Weight Plate Lining.
10	1	American Bridge Company, New York.....	\$ 72,800	\$ 02.95	\$ 0.03%	\$ 0.08	\$ 0.07%	\$ 0.10	\$ 0.05	\$ 0.11%	\$ 50.00	\$ 2,635.50
5	2	C. L. Strobel, Chicago, Ill. ....	91,300	05	05	04%	10	10	50	02%	50.00	4,450.00
9	3	Milwaukee Bridge & Iron Company, Milwaukee, Wis.	98,700	04%	04%	04%	08	08	50	02%	40.00	4,005.00
2	4	The King Bridge Company, Cleveland, Ohio.....	94,000	03%	05%	04%	07	06	45	02	38.00	3,115.00
1	5	Toledo Bridge Company, Toledo, Ohio.....	98,000	02.55	.04	.04	05%	08	40	02%	40.00	2,358.50

SANITARY DISTRICT OF CHICAGO - BIDS IN DETAIL FOR SUPERSTRUCTURE OF LIFT BRIDGE ACROSS THE CHICAGO RIVER AT ASHLAND AVENUE.

In Order of Magnitude—Lowest Bid First—Opened January 16, 1901.

No. of Bid.	Order Received.	Order of Magnitude.	NAME OF BIDDER.	Lump Sum for Superstructure and Substructure as Specified.	For Extra Medium Soft Steel. Cents Per Lb.	For Extra Iron Castings. Cents Per Lb.	For Extra Steel and Machinery Castings. Cents Per Lb.	For Extra Phosphor Bronze. Cents Per Lb.	For Extra Counter-Weight Block Castings. Cents Per Lb.	For Extra Yellow Pine or Oak. Per 1,000 Ft. B. M. Dollars.
4	1	1	Massillon Bridge Company, Massillon, Ohio.....	\$91,200	\$ 0 04½	\$ 0 08	\$ 0 10	\$ 0 50	\$ 0 02	\$ 40 00
10	2	2	American Bridge Company, New York.....	94,000	03½	08	10	50	01½	50 00
1	3	3	Toledo Bridge Company, Toledo, Ohio.....	95,000	04	04	08	40	02½	40 00
5	4	4	C. L. Strobel, Chicago, Ill.....	102,900	05	04½	10	50	02½	50 00
7	5	5	Indiana Bridge Company, Muncie, Ind.....	107,900	04	08	10	50	03	50 00
9	6	6	Milwaukee Bridge and Iron Company, Milwaukee, Wis.,.....	115,000	04½	04½	08	50	02½	40 00
2	7	7	The King Bridge Company, Cleveland, Ohio.....	117,000	05½	04½	08	45	02	35 00

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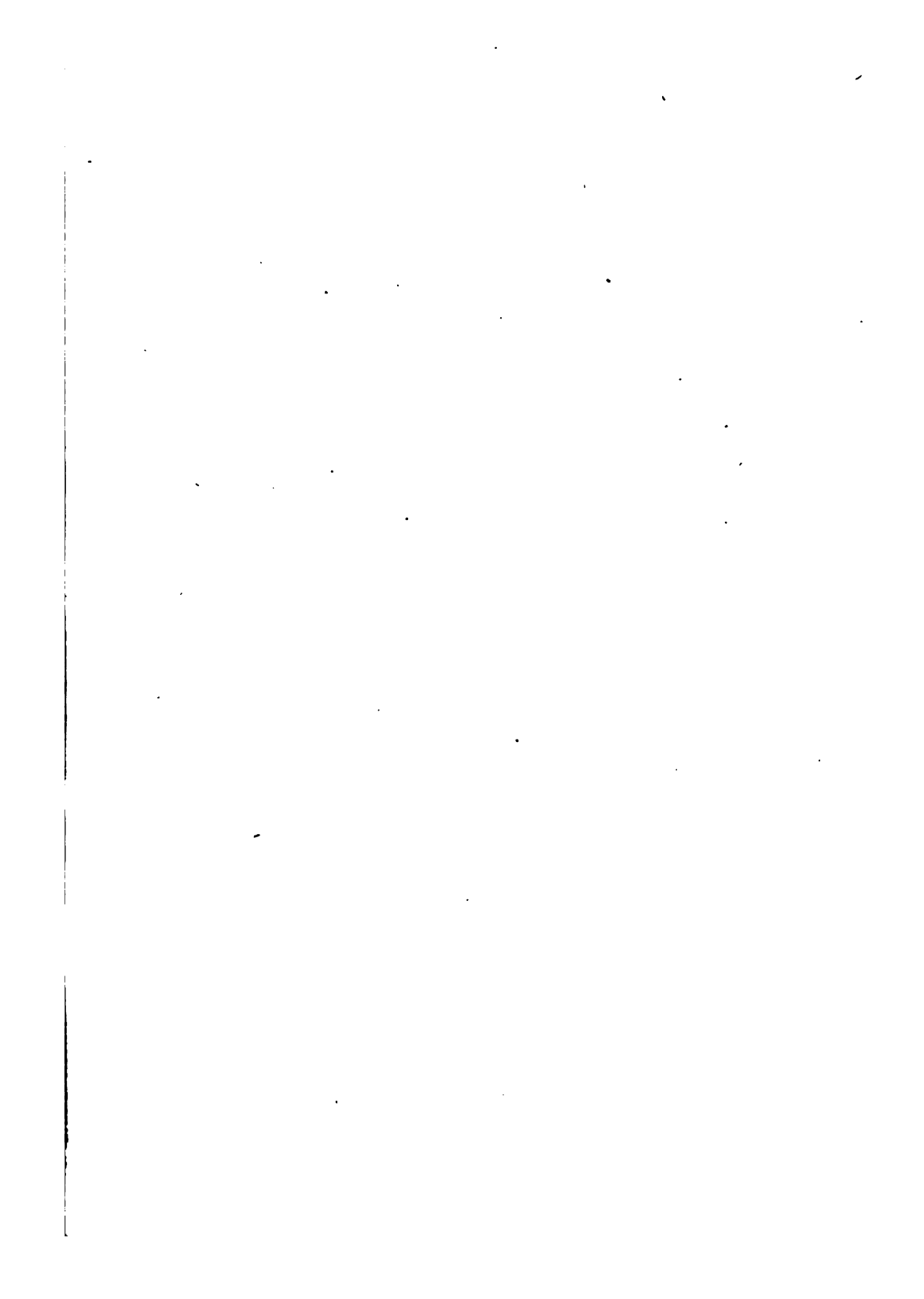
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Order Received.





January 16,]

— 6956—

[1901

**PROCEEDINGS**  
 —OF THE—  
**BOARD OF TRUSTEES**  
 —OF THE—  
**SANITARY DISTRICT OF CHICAGO.**

JANUARY 23, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Fourteenth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Wednesday, January 23, 1901, at 2 o'clock P. M. President Jones in the Chair.

On roll-call Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Webb and Wenter—eight members—were present. Mr. Smyth arriving subsequently.

**MINUTES.**

On motion of Mr. Wenter, seconded by Mr. Carter, the minutes of the regular meeting held January 9, 1901, and the regular meeting held January 16, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

Heldmaier & Neu (Section 17, regular).....	\$ 2,701 57
S. Morgan Smith Company (turbine wheels).....	1,298 80
Western Stone Company (Section O, riprap).....	672 00
Chicago Bridge and Iron Company (girders, power plant).....	272 00
Wilcox Bros. (lumber, waste gates).....	114 27

American Bridge Company (waste gates).....	\$ 482 50	
City of Chicago (arc lights, Section O).....	206 91	
L. P. Friestedt Company (Van Buren Street By-pass).....	238 95	
A. R. Porter, Clerk (pay-roll power plant).....	1,088 87	
A. R. Porter, Clerk (pay-roll power plant).....	267 88	
	<u>\$</u>	7,388 70

## ENGINEERING DEPARTMENT.

A. P. Little (carbon paper).....	\$ 4 75	
Frederick Post Company (blue prints).....	4 50	
Pearson Bros. (blue prints).....	1 25	
Eugene Dietzgen Company (blue prints).....	12 67	
Keuffel & Esser Company (drafting supplies).....	10 87	
Burke & James (photo supplies).....	94 57	
Samuel L. Hanks (ice).....	82 00	
	<u></u>	160 11

## CLERICAL DEPARTMENT.

The Chicago Towel Supply Company (towel).....	\$ 9 75	
American Water Company (water).....	20 25	
John H. Batterman (envelopes).....	15 88	
	<u></u>	45 88

## TREASURY DEPARTMENT.

Cameron, Amberg & Co. (bond register).....		33 25
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## LAW DEPARTMENT.

Isaac N. Phillips (Illinois Reporter).....	\$ 4 00	
West Publishing Company (law book).....	7 00	
Edwards & Hancock (stationery).....	12 45	
Cameron, Amberg & Co. (stationery).....	22 90	
K. M. Kelly (stenographic fees).....	7 00	
M. Phelps (stenographic fees).....	18 42	
Gray, Abbott, Williston & James (legal services).....	86 00	
Peck, Miller & Starr (legal services).....	258 00	
	<u></u>	415 77

## GENERAL ACCOUNT.

J. J. Bryant, receiver (rent, January 1, 1901).....	\$ 458 33	
Geo. W. Adelman (livery).....	14 00	
	<u></u>	472 33

## POLICE DEPARTMENT.

W. H. Heath & Sons (sundries).....	\$ 4 75	
H. J. Doran (expense).....	3 74	
M. Philbin (coal).....	14 00	
E. J. Coen (expense).....	35 60	
T. F. Ryan (coal).....	14 50	
	<u></u>	72 59

## MAINTENANCE ACCOUNT.

Wm. E. Deek (stove pipe).....	\$ 3 44	
Wm. O'Connell (hardware).....	5 98	
Thos. F. Ryan (coal).....	14 50	
H. S. Vrooman (fire clay, Bridgeport pumps).....	4 00	
The Carl Anderson Company (repairs, Bridgeport pumps).....	5 05	
Western Engineers' Supply Company (packing, Bridgeport pumps).....	8 56	
W. J. Freekelton, Jr. (coal, Bridgeport pumps).....	1,182 92	
	<u></u>	1,224 40
Grand total.....	\$	9,762 58

Mr. Carter, seconded by Mr. Cloldt, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, the motion was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

**REPORT FROM JOHN L. MATHEWS, SPECIAL COMMISSIONER, ON INVESTIGATION MADE INTO THE COMMERCE AND INDUSTRIES OF THE ILLINOIS AND MISSISSIPPI VALLEYS AND HOW THOSE INTERESTS WILL BE AFFECTED BY THE CONSTRUCTION OF THE PROPOSED DEEP WATERWAY.**

The President presented a report from Mr. John L. Matthews, who had been appointed by the Committee on Engineering and the President of the Board to make an investigation into the commerce and industries of the Illinois and Mississippi Valleys and to ascertain how those interests will be affected by the construction of the proposed deep waterway from Lake Michigan at Chicago to the Mississippi River, and the extension of the proposed fourteen-foot Channel to the Gulf of Mexico.

Mr. Wenter, seconded by Mr. Cloldt, moved that said report be received and printed in the Proceedings of the Board.

The motion prevailed unanimously and it was so ordered.

The following is the report:

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

**GENTLEMEN**—Acting under authority of your Engineering Committee and of your President I have made an investigation into the commerce and industries of the Illinois and Mississippi Valleys for the purpose of ascertaining, as far as possible, how they will be affected by the opening of the proposed deep waterway from Lake Michigan at Chicago to the Mississippi River at Grafton, and the extension of a 14-foot channel to the Gulf of Mexico.

Leaving Chicago on Sept. 12th, 1900, I traveled slowly down both rivers, stopping for a considerable time at each city and important town and securing as much reliable

information as possible, and supplementing this with the official statistics of the states bordering on the waterway. At the same time I have taken occasion to advertise the waterway project wherever possible by illustration and explanation and to solicit for it the interest and co-operation of the industrial organizations and municipalities along the way.

I have therefore the honor to submit the following as my report to your Honorable Body:

From Chicago to the Gulf of Mexico there has been an unbroken line of water communication for more than half a century via the Illinois and Michigan Canal and the Illinois and Mississippi Rivers. Over this route in early years passed all the freight between Chicago and the southwest. With the building up of railroads, this water route, because of its shallowness, has fallen gradually into disuse. It is possible for vessels to draw but four feet eight inches through the Canal, and at extreme low water no more than this in the Mississippi, between Grafton, Ill., and the mouth of the Mississippi River. In the upper reaches of the Illinois River even less has been available heretofore at certain stages, but this river has offered several feet greater depth since the turning on of the Chicago Sanitary Canal.

The railroads have been able to underbid the vesselmen for traffic because of the expense of carrying in shallow draft vessels. They have themselves, however, been compelled by the existence of the water route to maintain minimum rates since a very slight addition to the tariff has at all times been sufficient to send freight to the river and canal. The existence of the canal and river route, therefore, even though few vessels ply that way, has been responsible for the saving of hundreds of thousands of dollars to farmers, manufacturers and consumers, a saving that is immediately and greatly increased, as will be shown hereafter, by every improvement or increase of depth along the waterway.

The first stage of this waterway below Chicago is the Canal, ninety-six miles in length from Bridgeport to La Salle, and passing the thriving manufacturing cities of Joliet, Ottawa and Marseilles, and the famous Utica Cement Mines. Over this Canal the greatest number of boats ever

run was in 1864 and 1865 when 288 were employed, running 360,614 miles in 1865 and carrying 616,140 tons of merchandise. The greatest tonnage ever transported was in 1882, when one million eleven thousand two hundred eighty-seven (1,011,287) tons of merchandise were moved in 182 hauls.

During 1899, 70 vessels plied the canal, traveling 178,312 miles and carrying 469,352 tons. In this total is included over two million (2,000,000) bushels of corn; 799,000 bushels of wheat; 500,000 bushels of oats; 66,000 bushels of barley and 110,000 barrels of flour.

On the Illinois River below LaSalle there were employed during 1899 a single packet steamer, the Borealis Rex, between LaSalle and Peoria; a packet, the Bald Eagle, between Peoria and St. Louis; and the R. C. Gunter packet between Meredosia and St. Louis. These steamers were all interfered with by low water at certain times but maintained fairly regular trips, the Rex making a round trip daily, the others two a week each. In addition to these there was a large fleet of pleasure steamers and a number of tow boats handling grain barges, a few small coal flats and lumber barges. On the upper river barges could load, at low water, not to exceed three feet and then frequently ran aground and were subject to expensive and annoying delays. These boats carried by the locks at Copperas Creek and Henry 1,500 tons of merchandise, 180,000 bushels of corn, and a large amount of other freight and 8,000 passengers. Much was, of course, carried that did not pass these locks. During 1900 the river sailors enjoyed the deepest water on record, the Sanitary Canal having raised the low water level three feet. This brought an immediate boom to shipping. With six and seven feet draught vessels were able to underbid the railroads. From a single town, Chillicothe, 200,000 bushels of corn were shipped which the elevator owners, Messrs. Turner & Hudnet, were able to buy to better advantage than the railroad could offer. Though the rail rate on grain to the Peoria market was cut two cents on a hundred pounds the river route still cut under it. As a result the farmers were paid a price much nearer the market figure than formerly, and nearly \$20,000 was paid for grain in this town by the river shippers more than they would have

paid for the same grain had not the deep water cheapened transportation.

Altogether this year fully 1,500,000 bushels of grain was bought at river elevators for river shipment. In addition to this, however, the freight rate on a vastly greater amount, the whole crop in the region tributary to the river, was carried at a rate lowered by the new competition. This was as true of general cargoes as of grain. There was not vessel room for the freight seeking the river, and ship building received a boom. The Wallace Transportation Company was organized to build and operate a fleet of swift packet boats. The Borealis Rex ran loaded to the guards, and her owners, Capt. D. W. Swain & Son, of Peoria, built a large steamer, the Fred Swain, a side-wheeler, to go on the same run, thus giving a double daily service.

The Bald Eagle and the Gunter had similar good fortune, and the slight increase in river depth brought prosperity to the whole valley.

The Illinois River, from La Salle to Grafton, runs through one of the richest grain-producing regions in the world. It is the choicest land in the State. Of the entire crop of corn in Illinois a large proportion is grown in the counties which line the river. La Salle, Bureau, Putnam, Marshall, Peoria, Woodford, Tazewell, Fulton, Mason, Schuyler, Cass, Brown, Morgan, Pike, Scott, Greene, Jersey and Calhoun Counties border on the stream, but there is no region of the State which does not have easy access by rail or tributary stream to this waterway, so that to reach it, were deep water accomplished, would be easy.

The crops of Illinois, which thus would be afforded an easy outlet to the seaboard for export to the consuming counties, were in 1899, as follows:

Wheat .....	12,665,410 bushels
Corn .....	247,150,332 "
Rye .....	1,154,325 "
Oats .....	127,278,948 "
Barley .....	895,502 "
Hay .....	2,565,710 tons
Potatoes .....	15,648,192 bushels

These crops were sold for a total of \$129,718,298—more than five times the total cost of (estimated) continuing the 14-foot waterway, including permanent locks, from Lockport to Grafton on the Mississippi.

The upper valley of the Illinois River passes not only through a rich agricultural region but through one rich in coal. The hills bordering the river are underlaid by a fine quality of bituminous coal unexcelled for fueling purposes and mined as cheaply, if not more cheaply, than any similar product elsewhere in the world. This coal is not only suitable for fueling in its native state but is easily transformed into a fine fueling coke—and by a new process into a coke said to be entirely suitable for smelting iron ore. At the mouth of the Little Vermillion River in La Salle County, there is said to be 100,000,000 tons of this coal in sight. Even greater quantities are stored in the earth in the adjacent Bureau County.

Illinois in 1899 produced 25,000,000 tons of coal. Of this 750 000 tons came from LaSalle County, and 1,500 000 tons from Bureau County on the Illinois, most of the latter from the river city of Spring Valley. The lower counties of Peoria and Tazewell, both adjacent to the river, also brought large quantities to the surface. Sangamon County produced 2,500,000 tons within easy reach of the river and the great coal fields about Bloomington are but a few miles from the stream. This coal sells at from \$1.00 to \$2.00 per ton at the mines. Under present conditions it is entirely debarred from river transportation and depends upon railways for access to the markets. One of the great natural markets for northern coal is the iron region of Alabama and the manufacturing cities which have grown up about it, and in fact the whole Mississippi Valley. This market new, however, draws its supply almost exclusively from Pennsylvania and West Virginia, supplementing it with a small amount produced by southern mines. When the Ohio River is at flood, every available steamer is pressed into service, pushing down the river great tows of deep laden coal flats. Progress is little swifter than the current of the river, and the coal is landed at a minimum of expense in the southern markets. This coal, however, is entirely controlled by a single, great corporation, the Pittsburgh Coal Company, and is sold at a high price, frequently \$3.50 to \$4 00 per ton, no farther south than Memphis, and increasing farther down.

Compelled to depend upon railroad carriage, the mines of Illinois, which are

much nearer the lower valley, are entirely shut out from the trade, except in the case of those well to the south of the State as in Jackson and Williamson Counties, which find an easy outlet to the Mississippi at Grand Tower.

Superintendent Hazen of the LaSalle County Carbon Coal Company is an expert in matters relating to coal and the coal market. Speaking of the possibilities of the Illinois coal trade, if the deep waterway is secured, he said:

"It will be a wonderfully good thing, not only for Illinois, but for the nation. If vessels drawing 12 to 14 feet can come to wharves in the valley to load coal, they can carry the Illinois product, without breaking bulk, not only to the great southern market, but to Joliet, to Chicago, to Duluth, and even to Buffalo, and thus bring Illinois coal, the cheapest in price in the nation, into free competition in the great manufacturing states, cheapening fuel and stimulating manufacturing. It will enable manufacturers to make goods more cheaply without reducing wages, and will thus give them one more chance at the foreign markets in competition with Germany and England. And it will have another great effect in giving Illinois a chance at the world's markets.

"We have recently seen a contract closed, whereby eastern miners are to ship 450,000 tons of bituminous coal to the South of France. England and Germany are more and more drawing upon the American coal mines. The Central States, though rich in coal are shut off from this market by the railroad freights. The opening of the waterway will enable us to ship via the lakes, and the St. Lawrence or via the Mississippi, without breaking bulk, to these foreign ports from our mine wharves. We are heartily in favor of the opening of the waterway for these reasons, and believe it will be of tremendous national benefit."

In addition to its coal interests, LaSalle is the site of the largest zinc smelter and sheet zinc mills in the world—those of the Matthiessen and Gegeier Zinc Company, and of the Illinois Zinc Company. Practically all of the sheet zinc used in the United States is manufactured in LaSalle and in the adjoining city of Peru, and in addition great quantities are sent

from them abroad. These works were established because of the nearness of the coal mines many years ago. In recent years the opening of great zinc mines near Joplin, Mo., has brought the spelter or pig zinc close to the seaboard via the New Orleans and Sabine Pass outlets, thus increasing the exports of the metal enormously at the expense of the manufactured product. In this way a great American industry is threatened. At the same time, owing to the great increase in the cost of coal in Europe, the demand for American zinc has increased, so that whereas in 1899, but 7,000 tons were exported, in 1900 the exports up to September 1, had risen to 17,000 tons.

The manufacture of spelter and of sheet zinc require the use of a large and very expensive plant and the employment of labor of the highest skill. All of these have been centered at LaSalle for many years. Under present conditions, however, with freight on ore from Joplin to La Salle \$2.80 per ton, and on spelter, from Joplin to New Orleans, 24 cents per hundred, two tons of zinc ore making one of spelter, the Joplin smelters can land their product in Liverpool for 4 cents a hundred less than it cost the Illinois concern to bring the ore for the spelter to La Salle.

Mr. G. Weerts is Superintendent of the Matthiessen & Hegeler Works. Speaking of the needs of a waterway, he said:

"Such a waterway would bring about a close union between the great zinc fields of Missouri and the coal deposits of Illinois and would at the same time offer an unexcelled outlet for the manufactured product which would bring American sheet zinc into the European market at a price which would make this country a far more successful competitor of the zinc rollers of Germany. It would enable ore shipped to St. Louis by rail to be brought up the Illinois River by barge or steamer, and our sheet zinc to go back down the stream to New Orleans and the Gulf. It would also enable us to ship to the eastern market direct on vessels via the lakes and the St. Lawrence. It would greatly stimulate manufactures in this region without injuring other regions of our country, and by increasing work and numbers of highly paid and skilled workmen would increase

the consumption of other domestic products, and give increased freights to the railroads which must bring many of them hither. More than that, the repeated discoveries of small zinc deposits in or near Calhoun County at the mouth of the Illinois River lead us to believe that sooner or later a zinc field will be developed there, in which case a deepened Illinois River would offer a natural connection between zinc and coal.

"We are manufacturing at present 115,000 pounds of spelter a day, half of which we make into sheet zinc.

"As illustrating the differences in freight rates where a water competition is provided I would like to call attention to the fact that the Joplin smelters, shipping down a railroad which parallels the Mississippi River, can land spelter in Liverpool for 24 cents a hundred, while it costs us, who have no such favor, 17 cents to ship only to New York—export at such a rate being entirely prohibited. So much cheaper is water freight that we find it profitable to ship via Chicago and the lakes, even though we have to break bulk twice."

The valley of the Upper Illinois from LaSalle up to Utica is bordered with rocky cliffs, composed largely of the rock from which the best quality of Portland cement is made. At many points large mining operations have been carried on, and the Utica Cement Mills, the Chicago Portland Cement Works and the Dickinson Cement Works, representing more than half a million dollars capital, ship their product to all points of this country and abroad. Development of this industry to enormous proportions is assured by the opening of the waterway. In addition there are at LaSalle and Peru foundries, plow and wheel works, pressed brick works, clock manufacturers and other industries. The freight on products shipped out of the cities in a single year exceeds \$1,250,000.

About forty miles southwest of LaSalle stands the second city in size and importance in the State, Peoria. Situated on the Illinois River at a point at which it must reap any benefits that accrue from a deepening of the Channel, it has advantages in fuel and transportation unexcelled in the country save (in transportation) by such ports as are directly on tide water. The



entire surface of Peoria County is underlaid with excellent bituminous coal, in veins from four to seven feet thick. Geologists estimate that 44,000,000 tons of fuel lie within eight miles of the court house in the center of the city. The city is a terminal of the main line or branch lines of fourteen railroads, as follows:

Chicago, Rock Island & Pacific; Chicago, Burlington & Quincy; Iowa Central; Rock Island & Peoria; Toledo, Peoria & Western; Lake Erie & Western (now Lake Shore & Michigan Southern); Cleveland, Cincinnati, Chicago & St. Louis; Vandalia Line (Penna. R. R.); Peoria, Decatur & Evansville (now Illinois Central); Chicago, Peoria & St. Louis; Chicago & Alton; St. Louis, Peoria & Northern; Peoria & Pekin Union; Peoria & Pekin Terminal.

These roads bring to the river at this point the products of all sections of the union and bear away the products of the city's manufactories. They furnish a magnificent tributary system for a deep waterway. Over them the city receives annually some 80,000,000 bushels of grain, coming largely from Iowa and the northwest; of this, 15,000,000 bushels is forwarded, most of it going for export via long rail routes to Baltimore and Newport News. Half a million barrels of flour moves with this grain.

The city's chief importance, however, is as a manufacturing and jobbing center. The whole northern valley region is a great natural workshop destined to supply manufactured articles for a large part of the globe, and Peoria, with its abundant coal, is already one of the most important of the centers. Every improvement in the waterway which will furnish this city with a better outlet to the Atlantic via the great lakes or the gulf will greatly increase the foreign trade and the dependent internal prosperity.

Chief among Peoria industries is the making of distilled spirits and liquors, in which it exceeds every other city on the globe. It also pays more internal revenue taxes than any other city in America. In 1899 shipments of this product from Peoria by rail amounted to 847,285 barrels. The internal revenues paid annually on the product exceed \$20,000,000—almost enough in a single year to defray the cost of the

deep waterway from Lockport to Grafton. If pushed to the limit the distilleries of Peoria consume 85,000 bushels of corn in twenty-four hours and produce 167,000 gallons of spirits.

Peoria also possesses the largest glucose sugar refining plant in the world, consuming 25,500 bushels of corn every twenty-four hours and gives employment to 1,000 men. This factory makes crystal glucose, syrup makers and brewers glucose, brewers sugar, export 80 per cent sugar for ale making (all of this latter is exported) oil cake; gluten feed, buffalo feed, corn oil and other by-products. Shipments of glucose and syrup in 1899 were 385,145 barrels.

Starch making also occupies a prominent place in Peoria industries, and of the product 68,351,140 pounds were shipped out by rail in 1899. The total freight receipts of the city amounted to 2,970,227 tons and shipments to 2,078,238 tons.

Of the river business done from Peoria a great part is in the supplying of wholesale groceries to the smaller towns up and down the stream. The city does a jobbing business upward of \$15,000,000 a year.

Pekin, below Peoria, does a large business in distilling spirits and liquors. It has also a large river grain trade, a number of freight steamers and barges being employed in bringing grain to the city from river landings and elevators. The Turner-Hudnut Company owns an elevator at this point in which it does a business of 1,500,000 bushels annually, shipping most of the grain to the Chesapeake ports for export. The Smith-Hipper Grain Company, at the same point, does a business nearly as great.

Beardstown on the lower river, does an extensive flour milling business, using local wheat which is bought at river landings and in Snicarte and other back-water settlements. This flour, amounting to about 150 barrels a day, is almost all exported. Much of it is shipped by rail to Chicago, there transhipped to the lake steamers, and from Buffalo or Ogdensburg again transferred to a tide-water railway. A greater milling business, amounting to 500,000 barrels a year, is done at Alton. This also is mainly for export. Speaking of the trade and the outlook in view of possible water improve-

ment, the head of one of the largest mills, Mr. Hosea Sparks, said:

"At present most of our flour goes east for export, chiefly via the Chesapeake, though New York gets some of it. It would be much cheaper for us to ship via river to New Orleans and by vessel from there—cheaper in actual freight rates that is—but for one thing, insurance. Shippers must insure their wares. The danger of loss by rail is slight, and insurance via New York is light. But on the old fashioned, flimsy wooden boats that are all that can ply between here and New Orleans, the rates are almost prohibitive; we are forced, therefore, to ship by rail.

"Were the Illinois River so improved that modern steel steamers, even of comparative light draught, could descend it from the lakes, and returning could follow the inland waters to the St. Lawrence and the sea, rates that way would be lowered and we would be able to take advantage of the cheap water transportation, thus enabling us to cut still deeper into the foreign market. Were the improvement continued so that modern vessels could ply the Mississippi, the same result would obtain. We are heartily in favor of the waterway, and are willing to aid in any way to further it."

Alton is also the site of the largest flint glass bottle works in the world, receiving annually thousands of tons of sand and other materials, and shipping millions of bottles to all quarters of the globe.

The deepening of the Illinois River and its connection with the Sanitary Canal will make a new and very important tidewater outlet for the City of St. Louis. This city, having more than half a million of inhabitants, is less than forty miles from the confluence of the Illinois and Mississippi Rivers. It is one of the chief manufacturing centers of the country, and enjoys an enormous export trade, though hampered by the poor condition of the Lower Mississippi River and the necessity of long rail shipments. It is also a chief distributing center to the Northwest for imports and Southern and Eastern products. It did in 1899 a general manufacturing business of about \$400,000,000; a dry goods and notion business of \$65,000,000; wholesale groceries, \$60,000,000; boot and shoe trade, \$35,000,000; iron, \$10,000,000; hardware, \$27,000,000; drugs, chemicals,

etc., \$30,000,000; tobacco, \$14,880,000. In addition to these, more than 2,000,000 barrels of beer was made here in 1899, much of which was exported. The grain trade was as follows:

Flour, 1,514,815 barrels received; 1,166,439 barrels manufactured.

Wheat, received, 10,428,163 bushels.

Corn, 23,344,475 bushels.

Oats, 12,606,835 bushels.

Barley, 1,409,474 bushels.

Rye, 454,790 bushels.

The total freights of all kinds received and shipped exceeded 23,742,000 tons, as will be seen by the following schedule.

Comparative business in leading articles at St. Louis for 1899:

Flour, receipts, 1,514,815 barrels.

Flour, amount manufactured, 1,166,439 barrels.

Wheat, total receipts, 10,428,163 bushels.

Corn, total receipts, 23,344,475 bushels.

Oats, total receipts, 12,606,835 bushels.

Rye, total receipts, 454,790 bushels.

Barley, total receipts, 1,409,474 bushels.

All grain received (including flour reduced to wheat) 56,068,164 bushels.

Cotton, receipts, 1,028,192 bales.

Bagging, manufactured, 12,278,500 yards.

Hay, receipts, 175,820 tons.

Tobacco, receipts, 66,802 hogshead.

Lead, receipts, in pigs of 80 pounds, 1,611,112 pigs.

Hog product, total shipments, 885,453,945 pounds.

Cattle, receipts, 766,032 head.

Sheep, receipts, 432,566 head.

Hogs, receipts, 2,147,144 head.

Horses and mules, receipts, 130,286 head.

Lumber and logs, receipts, 1,148,124,000 feet.

Shingles, receipts, 58,621,000 pieces.

Lath, 11,362,150 pieces.

Wool, total receipts, 23,491,625 pounds.

Hides, total receipts, 68,983,720 pounds.

Sugar, received, 204,322,225 pounds.

Molasses (including glucose), received, 6,884,033 gallons.

Coffee, received, 290,700 bags.

Rice, receipts, 168,105 packages.

Coal, receipts, 109,067,875 bushels.

Nails, receipts, 589,980 kegs.

Potatoes, receipts, 3,453,560 bushels.

Salt, receipts, 427,020 barrels.

Salt, receipts, 73,755 sacks.

Salt, receipts, 581,280 bushels in bulk.

Butter, receipts, 13,729,188 pounds.

Tons of freight of all kinds received and shipped, 23,742,080.

Of this great total but 669,815 tons were handled, in or out, by water.

St. Louis received during the year 4,028,755 tons of coal; of this but 36,350 came by water. Though the great coal fields of the Illinois Valley are scarcely 200 miles away, not a bushel of coal reached the city from them by water, but 819,000 tons were brought in from southern Illinois by the Illinois Central Railroad.

In 1899 St. Louis received 989,959 standard bales of cotton, drawn from the southern states from Alabama west. Of this amount but 175,629 was handled by St. Louis factors, the remainder 814,330 being on through bills of lading; 272,521 bales went to England, 23,394 to Germany, 30,384 to Canada, 22,521 to Italy, 6,343 to France, 315 to Belgium, 258 to Holland, 300 to Russia, 178 to Scotland and 3,822 to Austria; 586,063 bales were shipped to various points in the United States.

Three hundred and thirty-four thousand one hundred and fifty-two bales exported to Europe from St. Louis contained 167,076,000 pounds of cotton, on which the freight to tide-water averaged about 30 cents a hundred.

Even under present conditions when shallow draught steamers navigate the Mississippi, freights from St. Louis to New Orleans by river are about one-third the rate from St. Louis to New York by rail, and export rates from St. Louis to Liverpool via the southern seaport not to exceed two-thirds the same rates via the Chesapeake or New York. With a 14-foot waterway rendering a natural connection between St. Louis and tidewater in which modern steel vessels could ply, it is evident that a saving of at least one-half (probably two-thirds) would be made in the rate to the seaboard. As a consequence the saving in a single year would amount to \$250,614. As the price of cotton at Liverpool is fixed by the world's supply, the bulk of this amount would remain to the credit of the producers. Of 686,068 bales containing 293,031,600 pounds shipped to various points in the United States the bulk went to New England and other tide water cotton mills. The freight on this approximated 30 cents a hundred, at least

one-third of which would be saved by a water-carriage to Buffalo or other eastern lake port. The saving thus in a single year would amount to \$295,031.50.

These figures are based simply on the actual trade by this route for a single year and do not take into consideration the enormous stimulus necessarily given to the cotton industry in Arkansas, Oklahoma, Indian Territory and other good cotton country now handicapped by long rail hauls to tide water. The amount must be increased also by over 600,000 bales shipped from Memphis by rail to northern and eastern points. It would effect in fact the entire crops of those states which now ship via Memphis and St. Louis; Alabama, Arkansas, Louisiana, Mississippi, Tennessee, Kentucky, Texas, Indian Territory and Oklahoma, a total in 1899 of 8,074,000 bales of a total crop in all states of 11,274,840 bales. If a saving of 5 cents per hundred pounds be made on this crop—half the minimum that seems probable—it will amount in a single year to \$2,018,500.

The effect the opening of a deep waterway would have on the cotton trade, however, is even greater than this. A thorough investigation of it has been made by Col. John Lambert, of the American Steel and Wire Company, at Joliet, Ill. Speaking of it he said:

"Here in the valley of the Desplaines River, at the end of the Drainage Canal, we have many thousands of horse power—water power—going to waste. This must be used in manufactures, and there is no manufacture for which it is better suited than that of cotton cloth. With a deep water channel, cotton can be brought up here cheaper than it can reach any other manufacturing point. Labor is abundant. Coal to supplement the water power is abundant in the surrounding counties. It is the ideal center for a great manufacturing industry.

"Down at the end of the Mississippi River, about the Gulf of Mexico, lie Cuba, Mexico, Central America and northern South America, all of which constitute a tremendous market for cotton cloths. At present England and Germany supply the greater part of this, though it is naturally our market. But with a big cotton-making industry here we could not on

the highest wages but undersell all foreign competitors in the gulf countries.

"More than that, we would furnish a supply of cotton cloths to our Southern and Western States, saving them the double freight on cotton to the East and on manufactured goods back again. With the Nicaragua Canal open, and even without it, we would reach the west coast of South America—at present a heavy buyer in foreign markets—and would be able by trans-shipping to reach the entire cotton cloth buying ports of the globe. This, while at the same time we are sending down the waterway the products of northern factories in every known kind of industry. In my opinion the cost of such waterway should hardly be considered a moment's obstacle when compared with the tremendous national benefits thus accruing from it. For it must be remembered that such an outlet to the gulf affects not Chicago alone—the shores of Lake Michigan and the great lakes—but the entire northern country. New England taps the water route at Ogdensburg on the St. Lawrence, New York at Buffalo, St. Paul at Duluth, and from each of these the manufacturers would flow steadily to the southern world."

In this opinion Mr. Lambert is backed enthusiastically by the members of the Cotton Exchange of Memphis, and the Merchants Exchange of St. Louis, and by the representative business men of those and other valley cities. Said Henry Hotter, Secretary of the Memphis, Tenn., Cotton Exchange:

"We are ardently in favor of the opening of the Chicago waterway and believe it will be a great benefit to the whole South and the nation. We ship thousands of bales of cotton to the East by rail which could go more easily by water. And we send a quantity to the Atlantic seaboard to be re-shipped on vessels to northern ports, and then either trans-shipped to Atlantic lines or sent back inland to such cities as Adams, Mass., for manufacture. This could go more easily by inland waters. But most of all we want a big cotton manufacturing center close at hand, and we believe the Illinois Valley offers a good site for it. Eventually the prosperity of this nation demands that the whole valley, from the lakes to the gulf, shall be vastly improved.

The deepening of the Illinois River should be the first step."

Said Secretary E. B. Miller of the Memphis Industrial League:

"In our opinion it is not only an advisable thing but a national necessity. About the Gulf of Mexico lie countries which annually put out manufactured articles, utensils for house and field, and architectural iron work to the extent of \$250,000,000. Of this vast trade the United States has scarcely anything, less than one-tenth, while these countries at her very door pass her by and buy in Europe. Europe has pauper labor, and what she gains in that the United States must overcome by cheapening her methods of transportation. So long as these lines lie east and west she can never accomplish this. But nature has furnished her with a great north and south highway which needs only to be improved.

"The South is not a manufacturing country and never will be, despite the sporadic and sometimes successful endeavors to start local industries. The great central valley of this country is its natural workshop, and not only for it but for the southern countries as well and for much of the rest of the globe. From the Alleghenies to the Rockies extends this workshop. About the lakes are the greatest iron deposits on the globe and some of the greatest coal mines. Wood, labor and every other necessary is there found. Through it all runs the great waterway, the Ohio from Pittsburgh, the Missouri from the northwest, the Mississippi from the north, and the Illinois connecting it with the great lakes and so via the St. Lawrence with the ocean again at the north. This is the step that first demands improvement, but the time is at hand for the national government to put these waterways under a single head, consider them as a unit and proceed to improve them on a proper scale. When that is done we will gain not only the trade of the gulf countries, \$250,000,000 a year, but of South America and the South Pacific, \$700,000,000 more. The ships that go to these countries will return laden with coffee, fruits and a great variety of tropical products, carrying them to the doors of the factories without breaking bulk. Of this commerce that

will pass her doors the South will take her portion, and the whole nation will be vastly benefited by it. Not the Nicaragua Canal even is of such importance to our country. We are all here in hearty favor of the immediate improvement of the Illinois."

A large number of gentlemen went from Memphis to New Orleans early in December to attend the Southern Industrial Convention and boom the waterway. I talked with most of these before they left and without exception they pledged their aid and the support of the measure. Said H. N. Rowner, Secretary of the Business Men's Club:

"We are eager to do our share. If a memorial from this body to Congress will be of any avail we will send one. We wish the Sanitary District to inform us just what such memorial shall propose. If an official communication from the Sanitary Board shall be received asking our co-operation and suggesting the form of a memorial, it will be favorably acted upon."

Similar statements were made by officers of other bodies and I would respectfully suggest that such communications be sent to the following bodies, all of Memphis:

Business Men's Club, H. N. Rowner, Secretary.

Merchants' Exchange, N. E. Graves, Secretary.

Cotton Exchange, Henry Hotter, Secretary.

Industrial League, E. B. Miller, Secretary.

Much that I desired to learn it has been impossible for me to ascertain—especially with regard to the actual present trade between the valley cities and Chicago. The figures and facts I have been able to bring together here, however, I believe are vastly more important than the unobtainable details, and present an unanswerable argument in favor of the completion of the waterway by the National Government.

Respectfully submitted,

(Signed) JOHN L. MATHEWS.

REQUISITION FROM THE ENGINEERING DEPARTMENT FOR QUARTERLY SUPPLIES ALLOWED.

Mr. Braden, Chairman of the Committee

on Engineering, presented the following report:

"CHICAGO, January 22, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering, to whom was referred at the meeting of the Board of Trustees of January 16, 1901, Requisition No. 600, amounting to \$226.52, from the Chief Engineer of the District for quarterly supplies for the Engineering Department for the quarter ending March 31, 1901, in accordance with the schedule of said supplies appended to said Requisition and transmitted therewith, desires herewith to report that the Committee has carefully examined said Requisition of the list of supplies asked for by said Department, and recommends that the same be allowed.

Respectfully submitted,

(Signed) JOS. C. BRADEN,  
*Chairman.*

Z. R. CARTER,  
W. H. BAKER,  
FRANK X. CLOIDT,  
WM. LEGNER,  
THOMAS J. WEBB,  
FRANK WENTER,  
*Committee on Engineering."*

(Two enclosures.)

Mr. Braden, seconded by Mr. Cloidt, moved that the report be adopted, and the recommendations contained therein concurred in.

The roll being called, it was so ordered.

*Yeas*—Messrs. Braden, Baker, Carter, Cloidt, Legner, Jones, Smyth, Webb and Wenter—Nine.

*Nays*—None.

REQUEST FOR PERMISSION TO HOLD A BOAT RACE ON THE WATERS OF THE MAIN CHANNEL.

The Clerk presented a communication from Andrew M. O'Dea, Instructor in Athletics of the University of Wisconsin, requesting that permission be granted the Athletic Association of the University of Wisconsin to hold a boat race on the waters of the Main Channel, the contesting parties to be the University Freshmen crews of the University of Wisconsin and

the crews of eastern universities to be hereafter agreed upon.

Mr. Braden, seconded by Mr. Baker, moved that the communication be referred to the Committee on Engineering.

The motion prevailed unanimously and it was so ordered.

**PROPOSITION TO SELL TO THE DISTRICT THE CANOPY-TOP LAUNCH "GLORIA."**

The Clerk presented a communication from W. E. Stowe, owner of the launch "Gloria," offering to sell said launch to the District for the sum of \$2,800.00; and further stating that the "Gloria" is a canopy-top launch, 42 feet in length, 9½ feet beam, draws 3 feet of water and maintains a steady rate of speed of eleven miles per hour.

Mr. Braden, seconded by Mr. Cloldt, moved that the communication be referred to the Committee on Engineering.

The motion prevailed unanimously, and it was so ordered.

**PROPOSITION TO PURCHASE FROM THE DISTRICT THE PRISONERS' CELL, OR IRON CAGE, LOCATED IN THE VILLAGE OF SUMMIT.**

The Clerk presented a communication from the Board of Trustees of the Village of Summit, by John D. Welsh, Marshal, offering to purchase from the District, for the sum of \$50.00, the prisoners' cell, or iron cage, located in the village of Summit, alleged to have been abandoned by the District.

Mr. Cloldt, seconded by Mr. Wenter, moved that the communication be referred to the Committee on Finance.

The motion prevailed unanimously, and it was so ordered.

**PROPOSITION TO RE-LEASE A TRACT OF LAND ON CONTRACT SECTION '6' OF THE MAIN DRAINAGE CHANNEL.**

The Clerk presented a communication from George Nagel, offering to re-lease a certain strip of land on Contract Section 6 of the Main Drainage Channel lying between the westerly reserve line of the Illinois and Michigan Canal, and a line parallel to and 200 feet distant from the southerly right of way line of said Main Channel, containing about thirty acres, lease to date from March 1, 1901, to February 28, 1902, at an annual rental of \$105.00 payable in advance.

Mr. Cloldt, seconded by Mr. Baker, moved that the communication be referred to a Committee of three to be appointed by the President to ascertain how many acres of land said tract contained, and to report back to the Board.

The motion prevailed unanimously, and it was so ordered.

The President thereupon appointed Messrs. Cloldt, Baker and Carter as such Committee.

**CLERK OF THE BOARD DIRECTED TO RETURN CHECKS DEPOSITED WITH BIDS.**

Mr. Braden, seconded by Mr. Smyth, moved that the Clerk be directed to return to their respective owners all checks, except those of the three lowest bidders, deposited with the bids for the erection of the sub and superstructures of bridges over the Chicago River at Canal, Harrison and Main Streets and Ashland Avenue, opened January 16, 1901.

The motion prevailed unanimously and it was so ordered.

**APPOINTMENT OF COMMITTEE TO CONFER WITH CITY AUTHORITIES IN REFERENCE TO REMOVING OBSTRUCTIONS IN CHICAGO RIVER OVER THE WASHINGTON STREET TUNNEL.**

Mr. Carter stated that he was informed by the Chief Engineer, who had made a careful investigation of the matter, that there were certain obstructions to navigation in the Chicago River over the Washington Street Tunnel which can be removed without damage or injury to the tunnel, and moved, seconded by Mr. Cloldt, that a Committee of three be appointed by the President to confer with the city authorities with a view to having the obstructions removed.

The motion prevailed unanimously, and it was so ordered.

The President thereupon appointed Messrs. Carter, Legner and Cloldt as such Committee.

**ADJOURNMENT.**

On motion of Mr. Braden, seconded by Mr. Webb, the Board then adjourned.

*A. R. Porter.*  
CLERK

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

JANUARY 30, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Fifteenth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Wednesday, January 30, 1901, at 2 o'clock P. M. President Jones in the Chair.

The roll being called, Messrs. Baker, Braden, Carter, Cloidt, Jones, Legner, Smyth, Webb and Wenter—nine members—were present.

**MINUTES.**

On motion of Mr. Wenter, seconded by Mr. Baker, the minutes of the regular meeting held December 26, 1900, and of the regular meeting held January 23, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**PAY ROLLS.**

Engineering Department (Chief Engineer's Roll, January, 1901).....	\$ 2,936 46	
Engineering Department (Division of Construction Roll, January, 1901).....	2,447 50	
Engineering Department (Discharge Roll, January, 1901).....	97 84	
	<hr/>	\$ 5,471 80
Clerical Department (Clerk's Roll, January, 1901).....		1,083 34

Law Department (Attorney's Roll, January, 1901) .....		1,762 51
Treasury Department (Treasurer's Roll, January, 1901) .....		37 01
General Account (General Roll, January, 1901) .....	\$ 350 00	
General Account (Special Roll, January, 1901) .....	175 00	
General Account (Trustees' Roll, January, 1901) .....	2,333 84	
		2,858 34
Police Department (Marshal's Roll, January, 1901) .....		1,455 50
Maintenance Account (Controlling Works Roll, January, 1901) .....	\$ 580 87	
Maintenance Account (Controlling Works Discharge Roll, January, 1901) .....	12 00	
Maintenance Account (Bridgeport Pumps Roll, January, 1901) .....	293 87	
Maintenance Account (Bridgeport Pumps Discharge Roll, January, 1901) .....	97 87	
Maintenance Account (Bridgeport Pumps Discharge Roll, January, 1901) .....	36 00	
		1,020 01
Total .....	\$	13,976 51

## CONSTRUCTION ACCOUNT.

Lyden & Drews Company (Chicago River improvement) .....	\$ 3,480 00	
Chicago Bridge and Iron Company (Taylor Street Bridge) .....	20,000 00	
Heldmaier & Neu (Section 17, Coffey Dam) .....	489 79	
Illinois Central Railroad Company, lessee (Ash Street Crossing) .....	17 50	
Chicago Junction Railway Company (Pan Handle Bridge) .....	181 02	
Continental Bolt and Iron Works (Pan Handle Bridge) .....	18 19	
The Marsh & Bingham Company (Pan Handle Bridge) .....	33 08	
Chicago Crushed Stone Company (Southwest Boulevard Bridge approach) .....	340 92	
Chicago Crushed Stone Company (Southwest Boulevard Bridge approach) .....	404 70	
		24,815 20

## ENGINEERING DEPARTMENT.

Chas. L. Safford (rubber stamps) .....	\$ 8 15	
S. J. Stebbins Company (hardware) .....	4 89	
The Consumers Company (water) .....	7 52	
W. E. Pollock (coal) .....	8 50	
The Chicago Towel Supply Company (towel) .....	9 00	
California Manufacturing Company (lumber) .....	14 80	
Cameron, Amberg & Co. (letter heads) .....	22 50	
The Foster-Munger Company (lumber) .....	22 30	
Wygant & Ayres (rent, Corwith) .....	37 50	
South Side Lumber Company (lumber) .....	39 26	
H. W. Buchman (rent river office) .....	15 00	
W. G. Derbyshire (services bridge inspector) .....	100 00	
A. R. Porter, Clerk (Joliet force account) .....	169 00	
		458 42

## LAW DEPARTMENT.

John S. Runnells (services General Counsel, January, 1901) .....	\$ 416 67	
Kramer & Erickson (professional services) .....	12 00	
International Secret Service Agency (services) .....	40 60	
Louise M. Foxcroft (services, stenographer) .....	68 38	
James Todd, Attorney (expense) .....	29 50	
James Todd, Attorney (expense) .....	80 40	
John W. Nadelhoffer (expense) .....	64 82	
John W. Nadelhoffer (expense) .....	96 57	
F. C. Laughlin (services, Law, et al., case) .....	20 00	
Huehl & Schmidt (expert services, Law, et al., case) .....	5 00	



E. C. Hurling & Co. (expert services, Law, et al., case) .....	125 00	
H. H. Fuller (expert services, Law, et al., case) .....	125 00	
A. M. McKay (expert services, Law, et al., case) .....	125 00	
Otto E. Pietsch (expert services, Law, et al., case) .....	125 00	
Carl Mueller (expert services, Law, et al., case) .....	125 00	
M. Philbin (expert services, Law, et al., case) .....	125 00	
W. A. Hutchings (expert services, Law, et al., case) .....	150 00	
Chas. A. Hale (expert services, Law, et al., case) .....	225 00	
James A. McLane (expert services, Law, et al., case) .....	200 00	
Henry B. Mason (expert services, Law, et al., case) .....	200 00	
Edwin F. Getchell (expert services, Law, et al., case) .....	225 00	
Edgar M. Snow (expert services, Law, et al., case) .....	300 00	
Aaron M. McKay (expert services, Law, et al., case) .....	425 00	
James Todd, Attorney (expert fees, Law, et al., case) .....	175 00	
James Todd, Attorney (expert fees, Law, et al., case) .....	200 00	
Weasmer & Norden (court reporting) .....	459 50	
Weasmer & Norden (court reporting) .....	508 20	
Murray J. Brady (court reporting) .....	312 95	
		5,084 54

## GENERAL ACCOUNT.

Western Electric Company (telephone wire) .....	\$ 115 33	
Murray J. Brady (reporting conference Citizens' Committee) .....	217 10	
		332 43

## MAINTENANCE ACCOUNT.

Standard Oil Company (oil, Bridgeport pumps) .....	\$ 4 32	
R. B. Crouch (oil, Bridgeport pumps) .....	5 67	
		9 99
Grand total .....	\$ 44,622 09	

Mr. Carter, seconded by Mr. Clويدt, moved that the vouchers as read and shown above be approved and ordered paid.

The roll being called, the motion was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Clويدt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

REPORT IN REFERENCE TO PAYMENT OF  
INDEMNITY TO THE CHICAGO TER-  
MINAL TRANSFER RAILROAD COM-  
PANY.

Mr. Braden, Chairman of the Committee on Engineering, presented a report, together with the joint certificate of the Chief Engineer of the Sanitary District and the Chief Engineer of the Chicago Terminal Transfer Railroad Company, as to the amount of indemnity to be paid the Chicago Terminal Transfer Railroad Company for the ordinary maintenance and

repairs of the bridge erected for said company across the Main Channel and the span added by the District to the bridge across the Desplaines River, fixing the amount due said company at \$26,116.40; also the opinion of the Attorney as to the liability of the District under the provisions of the contract entered into with said company, dated September 8, 1897.

Mr. Braden, seconded by Mr. Smyth, moved that the report be adopted and that the President and Clerk be authorized and directed to pay to the Chicago Terminal Transfer Railroad Company the sum of \$26,116.40, in full of said indemnity, when said company shall have executed a proper receipt therefor.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Clويدt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

The following is the report:

CHICAGO, January 29, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering desires herewith to report that the Chief Engineer of the District and the Chief Engineer of the Chicago Terminal Transfer Railroad Company, acting together under the provision of Article 1, Sections 8 and 9, of a certain contract entered into September 3, 1897, by and between the Sanitary District of Chicago and the Chicago Terminal Transfer Railroad Company (page 5881 of the Proceedings) with reference to the payment to be made to the said railroad company as an indemnity for the cost of ordinary bridge repairs, etc., under the terms of said contract, have found that the sum to be paid to said company amounts to twenty-six thousand one hundred and sixteen dollars and forty cents.

Your Committee transmits herewith the opinion of the Attorney holding that the District is liable under the provisions of said contract, and therefore recommends that the President and Clerk of the District be authorized and directed to pay to the said Chicago Terminal Transfer Railroad Company the sum of twenty-six thousand one hundred and sixteen dollars and forty cents, when said company shall have executed a proper receipt therefor.

Attached hereto is the certificate of said engineers.

Respectfully submitted,

(Signed)

J. C. BRADEN,

*Chairman,*

Z. R. CARTER,

THOMAS A. SMYTH,

FRANK WENTER,

WM. LEGNER,

FRANK X. CLOIDT,

THOMAS J. WEBB,

ALEX. J. JONES.

*Committee on Engineering "*

(Eight enclosures.)

The following is the Joint Certificate of the Chief Engineers:

"Acting under the provisions of Article 1, Sections 8 and 9 of a certain contract en-

tered into September 3, 1897, by and between the Sanitary District and the Chicago Terminal Transfer Railroad Company, successors to the Chicago and Calumet Railway Company, we, the undersigned Chief Engineers, respectively of the Sanitary District of Chicago and of the Chicago Terminal Transfer Railroad Company, hereby certify that we have verified the weights, quantities and values of the materials falling under the provisions of Sections 8 and 9, of Article 1 of the aforesaid contract of September 3, 1897, and have made the computations based thereon for the purpose of determining the sum to be paid to the railroad company by the Sanitary District for the ordinary maintenance and repairs of the bridge structures designated in Sections 1 and 2 of Article 1, and for the general depreciation and wearing out thereof, and for assuming all liability of accident to the same figured upon the use of said bridges as fixed structures, and we find the sum to be so paid to amount to twenty-six thousand one hundred and sixteen and forty one hundredths (\$26,116.40) dollars shown in detail in the statement hereto attached.

(Signed.)

ISHAM RANDOLPH,

*Chief Engineer, Sanitary District of Chicago.*

(Signed)

F. E. PARADIS,

*Chief Engineer Chicago Terminal Transfer Railroad Co."*

CHICAGO, November 28, 1900.

REPORT ON BIDS FOR THE ERECTION OF SUB AND SUPERSTRUCTURES OF BRIDGES ACROSS THE CHICAGO RIVER AT CANAL AND MAIN STREETS AND ASHLAND AVENUE.

Mr. Braden, Chairman of the Committee on Engineering, presented a report from the Committee in reference to the bids for supplying and erecting the sub and superstructures of bridges across the Chicago River at Canal and Main Streets and Ashland Avenue, referred to the Committee on Engineering at the meeting of the Board, held July 16, 1901, (page 6948 of the Proceedings.)

The following is the report:

CHICAGO, January 29, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engi-

neering, to which was referred January 16, 1901, (page 6948 of the Proceedings), the matter of bids for supplying and erecting the substructure and superstructure for the bridge across the Chicago River at Canal Street (with By-pass), for supplying and erecting the substructure and superstructure for the bridge across the Chicago River at Main Street, and for supplying and erecting the substructure and superstructure across the Chicago River at Ashland avenue, herewith makes report to your Honorable Body that it has carefully examined and considered each of the several lists of bids submitted upon the work mentioned as heretofore advertised and tabulated, and finds that the lowest bidder upon each of said structures of the work as advertised is as follows, respectively:

For supplying and erecting the superstructure for the bridge across the Chicago River at Canal Street (with By-pass) is the American Bridge Company of New York.

For supplying and erecting the superstructure for the bridge across the Chicago River at Main Street is the American Bridge Company of New York.

For supplying and erecting the superstructure for the bridge across the Chicago River at Ashland Avenue is the Massillon Bridge Company of Massillon, Ohio.

For supplying and erecting the substructure for the bridge across the Chicago River at Canal Street (with By-pass) is Lydon & Drews Company of Chicago, Ill.

For supplying and erecting the substructure for the bridge across the Chicago River at Main Street is Lydon & Drews Company of Chicago, Ill.

For supplying and erecting the substructure for the bridge across the Chicago River at Ashland Avenue is Page & Shnoble of Chicago, Ill.

And your Committee reports that each of said lowest bidder is, in its opinion, responsible, and therefore recommends that the contracts, respectively, for the execution of said work as hereinbefore mentioned in the manner described in the advertisement, plans and specifications heretofore prepared by the Engineering Department, be let to the firm or corporation designated in the order hereinafter named and at the prices hereinafter stated, to-wit: The contract for supplying and erecting

the superstructure for the bridge across the Chicago River at Canal Street (with By-pass) to the American Bridge Company of New York at the following prices:

Superstructure lump sum seventy-one thousand one hundred (71,100) dollars; for furnishing pit linings per pound, two and ninety-five one hundredth (2.95) cents; for extra medium soft steel per pound, three and seventy-five one hundredth (3.75) cents; for extra iron castings per pound, three (3) cents; extra cast-steel track plates per pound, seven and fifty one hundredth (7.50) cents; extra steel and machinery castings per pound, ten (10) cents; extra phosphor bronze per pound, fifty (50) cents; extra counter weight block castings per pound, one and fifty one hundredth (1.50) cents per pound; extra lumber per thousand feet B. M., fifty (50) dollars. The contract for supplying and erecting the superstructure for the bridge across the Chicago River at Main Street to the American Bridge Company of New York at the following prices: Superstructure lump sum seventy-two thousand eight hundred (72,800) dollars; for furnishing pit linings per pound, two and ninety-five one hundredth (2.95) cents; extra medium soft steel per pound, three and three-quarter (3¾) cents; extra iron castings per pound, three (3) cents; extra cast steel track plates per pound, seven and one-half (7½) cents; extra steel machinery castings per pound, ten (10) cents; extra phosphor bronze per pound, fifty (50) cents; extra counter-weight block castings per pound, one and one-half (1½) cents; extra lumber per thousand feet, B. M., fifty (50) dollars.

The contract for supplying and erecting the superstructure across the Chicago River at Ashland Avenue to Massillon Bridge Company of Massillon, Ohio, at the following prices: Superstructure, lump sum ninety-one thousand two hundred (91,200) dollars; extra medium soft steel per pound, four and one-half (4½) cents; extra iron castings per pound, eight (8) cents; extra steel and machinery castings per pound, ten (10) cents; extra phosphor bronze per pound, fifty (50) cents; extra counter-weight block castings per pound, two (2) cents; extra lumber per thousand feet B. M., forty (40) dollars.

The contract for supplying and erecting

the substructure for the bridge (with Bypass) across the Chicago River at Canal Street to Lydon and Drews Company of Chicago, Illinois, at the following prices: Excavation, price per cubic yard, fifty-two (52) cents; sheet piling and bracing per thousand feet B. M., thirty-seven (37) dollars; oak timber in wales, price per one thousand feet B. M., forty-seven (47) dollars; pine or oak piles delivered, price per lineal foot, seventeen (17) cents; oak protection piles delivered, price per lineal foot, twenty-seven (27) cents; piles driven in foundation, price per lineal foot, thirteen (13) cents; piles driven in protection, price per lineal foot, seven (7) cents; Portland cement concrete, price per cubic yard, five dollars and fifty cents (\$5.50); Portland cement pit linings, price per cubic yard, nine dollars and fifty cents (\$9.50); steel pit linings, price per pound, five one-thousandth (.006) cents; substructure metal, price, five one-thousandth (.006) cents; removal of old substructure and superstructure, lump sum of six thousand dollars (\$6,000).

The contract for supplying and erecting the substructure for the bridge across the Chicago River at Main Street to Lydon & Drews Company, of Chicago, Ill., at the following prices: Excavation, price per cubic yard, fifty-two (52) cents; sheet piling and bracing per one thousand feet B. M., thirty-seven dollars (\$37); oak timber in wales, price per one thousand feet B. M., forty-seven dollars (\$47); pine or oak piles delivered, price per lineal foot, seventeen (17) cents; oak protection piles delivered, price per lineal foot, twenty-seven (27) cents; piles driven in foundation, price per lineal foot, thirteen (13) cents; piles driven in protection, price per lineal foot, seven (7) cents; Portland cement concrete, price per cubic yard, five dollars and fifty cents (\$5.50); Portland cement pit linings, price per cubic yard, nine dollars and fifty cents (\$9.50); steel pit linings, price per pound, five thousandths (.006) cents; substructure metal, price per pound, five thousandths (.006) cents; removal of old substructure and superstructure, lump sum of twelve hundred dollars (\$1,200); sewer work, lump sum of two hundred and fifty dollars (\$250); maintenance of water tunnel, lump sum of five hundred dollars; sinking shaft, price per foot, thirty-three dollars (\$33);

extension of water tunnel, price per foot, thirty-three dollars (\$33).

The contract for supplying and erecting the substructure for the bridge across the Chicago River at Ashland Avenue, to Page & Shnable, of Chicago, Ill., at the following prices: Excavation, price per cu. yd., fifty four (54) cents; sheet piling and bracing, price per 1,000 feet B. M., thirty-five dollars (\$35); oak timber in wales, price per one thousand feet B. M., thirty-nine dollars (\$39); oak protection piles delivered, price per lineal foot, twenty (20) cents; piles driven in protection, price per lineal foot, twenty-five (25) cents; Portland cement concrete, price per cubic yard, five dollars and twenty-two cents (\$5.22); removal of old substructure and superstructure, lump sum of forty-one hundred and twenty dollars (\$4,120); sewer work, lump sum of two hundred and fifty dollars (\$250).

Your Committee, therefore, further recommend that the President and Clerk of the District be authorized and directed to execute, on behalf of the District, said contracts, respectively, in the form to be prepared according to said advertisement, plan and specification, and as soon as the same shall have been executed by the persons or corporations, respectively above mentioned, for the work, awarded to said persons or corporations, respectively above mentioned, and bonds shall have been furnished and approved by the Committee on Finance for the faithful performance of the work specified in the penal sum set forth as follows: By the American Bridge Company a bond in the sum of thirty-five thousand dollars (\$35,000.00) on each of the contracts awarded to said American Bridge Company; by the Massillon Bridge Company a bond in the sum of thirty-five thousand dollars (\$35,000.00); by Lydon & Drews Company a bond in the sum of fifteen thousand dollars (\$15,000.00) on each of the contracts awarded to said Lydon & Drews Company; by Page & Shnable a bond in the sum of fifteen thousand dollars (\$15,000.00). Each of said bonds to be executed in proper form with a surety company acceptable to and approved by the Committee on Finance of the Sanitary District of Chicago.

Your Committee has duly considered the

possibility of recommendations being made by the Expert Commission now examining the plans of this District, which might result in the alteration of the river lines already established by your Honorable Body, but are of the opinion that no recommendations providing for a width of stream greater than 200 feet would necessitate any changes in the bridge plans already adopted by your Honorable Body. The openings of from 140 feet at right angles to 170 feet at acute angles, already adopted by the Sanitary District, are the greatest possible to be made in the interest of economy and fully meet the demands for all vessels likely to navigate the Great Lakes for generations to come, as the greatest width of beam at the present time is about 52 feet, or but little more than one-third of the bridge opening provided by your Honorable Body. Any recommendations for a greater width of channel than that established by the present policy of the Sanitary District must, and of course will, be met by additional by-passes or spans outside of the present bridge lines and abutments in order to supply the additional flow of water:

Your Committee has, however, considered the possibility of recommendations being made by the Expert Commission aforesaid which might make it advisable to vary the existing dock lines or to shift the proposed bridges, and in order that the Sanitary District may be left free to direct any such changes or make any modifications, your Committee recommends that the following additional clause be inserted in each of the contracts before execution:

"It is further agreed and provided that the Sanitary District shall be free to make any changes of location of the substructure of said bridge, in order to conform to any changes of dock line that may be deemed advisable, or meet any change of policy of said Board, provided the same does not involve a change in the dimensions of said structure; and that if said changes of location shall be ordered before the actual beginning of the construction of said structure, then and in that case, all such changes shall be made by such contractor free of all expense to the Sanitary District. In case any changes should be ordered after the actual beginning of said work of construction of said bridge, then and in that case the compensation to be

paid said contractor shall be governed by the unit prices hereunder, and shall not involve any claims for extras or additional compensation by reason of change of plans; and the work or expense of removing all materials which have entered into the construction already accomplished shall be borne by the Sanitary District of Chicago.

Respectfully submitted,

(Signed)

J. C. BRADEN.

*Chairman.*

THOMAS A. SMYTH,

WM. LEGNER,

THOMAS J. WEBB,

FRANK X. CLOIDT.

*Committee on Engineering.*

Mr. Braden, seconded by Mr. Smyth, moved that the report be adopted and the recommendations contained therein concurred in.

Mr. Carter, seconded by Mr. Wenter, moved as an amendment to the motion made by Mr. Braden that action on the report be postponed for one week.

The President then called Vice-President Baker to the chair.

Mr. Jones, seconded by Mr. Cloidt, thereupon moved as a substitute for the amendment made by Mr. Carter, that action on the report be deferred until Saturday, February 2, 1901, at 8 o'clock P. M.

The roll being called on the substitute motion, it was adopted.

*Yeas*—Messrs. Baker, Braden, Cloidt, Jones, Legner and Smyth—Six.

*Nays*—Messrs. Carter, Webb and Wenter—Three.

COMMUNICATION FROM GRANT MARSH,  
OF ST. LOUIS, MO.

The Clerk presented the following communication from Mr. Grant Marsh, of St. Louis, Mo., a pilot on the Mississippi and Missouri Rivers:

Mississippi and Ohio River Pilots' Society,  
Commercial Building.

SECRETARY'S OFFICE  
520 Olive Street, Room 619,  
ST. LOUIS, MO., Jan. 29th, 1900. }

*President Alexander Jones, Chicago, Ill.:*

DEAR SIR—I have the honor to address you in relation to the Drainage Canal. Should you wish to know, I can prove to all

interested parties that the water that comes out of the Illinois River does not come to the Missouri shore till it gets fifty miles below here, and I doubt if it touches the Missouri side between here and Cairo. When the water first reached this place, I told the reporter of the *Globe Democrat* that if he could charter a boat and spend some money, that I could soon convince him that the water from the Illinois River never touched the Missouri shore, and never came anywhere near the intake tower at the Chain of Rocks. I can name you pilots on the enclosed list that have seen the river clear on the Illinois side at Fort Charter, fifty miles below here. Should you want the information, you will have no trouble in establishing the above facts by actual experience and test, as it will not cost much. I am a pilot on both the Mississippi and Missouri, as well as many others on the enclosed list, and we know what is right about the matter, and can prove it to you and all others. We want your Canal; it makes water in our low-water channel.

Respectfully,

(Signed)

GRANT MARSH,  
7016 Virginia Avenue.

Mr. Jones, seconded by Mr. Webb, moved that the communication be printed and referred to the Committee on Judiciary.

The motion prevailed unanimously, and it was so ordered.

COMMUNICATION FROM WILLIAM M. SPRINGER, SPECIAL COUNSEL FOR THE DISTRICT.

The Clerk presented a communication from William M. Springer, Special Counsel in the matter of the State of Missouri and the City of St. Louis vs. the State of Illinois and the Sanitary District of Chicago, notifying the Board that the Supreme Court of the United States had overruled the demurrer of the respondents in said case, and that there was a dissenting opinion by Chief Justice Fuller, which was concurred in by Justices Harlan and White; and further stating that he had immediately filed the separate answers of the State of Illinois and of the Sanitary District of Chicago.

Mr. Wenter, seconded by Mr. Carter,

moved that the communication be referred to the Committee on Judiciary.

The motion prevailed unanimously, and it was so ordered.

NOTICE OF INTENTION TO ENTER SUIT AGAINST THE SANITARY DISTRICT OF CHICAGO.

The Clerk presented the following communication from the Omaha Packing Company, by Peckham, Brown & Packard, its attorneys and agents, notifying the Board of their intention to enter suit against the Sanitary District of Chicago for damages amounting to the sum of \$9,869.11.

The following is the communication:

CHICAGO, January 28, 1901.

*To the Trustees of the Sanitary District of Chicago, Security Building, Chicago:*

GENTLEMEN—The Omaha Packing Company, a corporation under the laws of Illinois, claims damages against the Sanitary District of Chicago to the amount of \$9,869.11, by reason of the Sanitary District of Chicago changing and increasing the current of the Chicago River, and especially undermining the docks and building walls of property belonging to the Omaha Packing Company, just west of the bridge at South Halsted Street, over the Chicago River.

The said Omaha Packing Company intends to sue the Sanitary District of Chicago for the same, and gives this notice to the Trustees of the Sanitary District, under Section 19 of the act of May 29, 1889, entitled "An act to create sanitary districts and to remove obstructions in the Desplaines and Illinois Rivers," and will, in case judgment is rendered against said District for damage, claim to recover its reasonable attorney's fees to be taxed as costs of suit.

OMAHA PACKING COMPANY,  
By PECKHAM, BROWN & PACKARD,  
*Its Attorneys and Agents.*

Mr. Jones, seconded by Mr. Wenter, moved that the communication be printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

**NOTICE OF SPECIAL ASSESSMENT.**

The Clerk presented a communication from Henry Banzet, City Collector of the City of Joliet, Will County, Illinois, notifying the Board that the County Court of Will County has rendered judgment for a special assessment upon the following described property, to-wit: William Adam's Subdivision of Lots 3 and 4, of Block 10, original Town of Joliet, Will County, Illinois, amounting to \$258.54 and to be paid in seven installments. The amount of the first installment being \$56.22, due and payable on the second day of June, 1902; the remaining six installments are each of the sum of \$33.22, the first of which is due and payable on the 2nd day of June, 1903.

Mr. Jones, seconded by Mr. Carter, moved that the communication be referred to the Committee on Judiciary.

The motion prevailed unanimously and it was so ordered.

**RELEASE OF BOND OF THE KING BRIDGE COMPANY.**

Mr. Carter, Chairman of the Committee on Finance, reported that he had been informed by the Chief Engineer and Attorney of the District that the Kedzie Avenue Bridge had been completed in May, 1899, and that no claims or demands of any kind or nature have since been filed with the Sanitary District, and moved, seconded by Mr. Wenter, that the bond of the King Bridge Company, on account of said Kedzie Avenue Bridge, be released.

The roll being called, the motion was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

**REPORT IN REFERENCE TO PROPOSITION OF GEORGE NAGEL, TO RE-LEASE ACRE PROPERTY ON CONTRACT SECTION "6."**

Mr. Cloldt made verbal report in reference to the communication received from George Nagel, offering to re-lease a certain tract of land on Contract Section "6" of the Main Drainage Channel, which had

been referred to a special committee, consisting of Messrs. Cloldt, Baker and Carter (page 6968 of Proceedings); stating that the Committee recommended the re-leasing of said strip of land at an annual rental of \$8.50 per acre.

Mr. Cloldt, seconded by Mr. Braden, thereupon moved that the President and Clerk of the District be authorized and directed to execute a lease of said strip of land on Contract Section "6" of the Main Drainage Channel, said land lying between the westerly reserve line of the Illinois and Michigan Canal and a line parallel to and 200 feet distant from said Main Channel, to George Nagel, at an annual rental of \$8.50 per acre. Lease to date from March 1, 1901, to February 28, 1902; rent to be payable in advance.

The roll being called the motion was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

**APPOINTMENT OF COMMITTEE ON IMPROVEMENT OF NORTH BRANCH OF THE CHICAGO RIVER.**

Under the head of unfinished business, Mr. Webb, seconded by Mr. Winter, moved that the President appoint a Committee of three on Improvement of the North Branch of the Chicago River.

The motion prevailed unanimously, and it was so ordered.

The President thereupon appointed Messrs. Webb, Braden and Legner as such Committee.

**ADJOURNMENT.**

Mr. Jones, seconded by Mr. Legner, moved that the Board now adjourn to meet Saturday, February 2, 1901, at 8 o'clock P.M.

The motion prevailed unanimously, and it was so ordered.

The Board thereupon adjourned.

*A. R. Porter.*  
CLERK

January 30,]

—6978—

[1901



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

FEBRUARY 2, 1901.

OFFICIAL RECORD.

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

ADJOURNED MEETING.

The Adjourned Session of the Five Hundred and Fifteenth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Saturday, February 2, 1901, at 8:00 o'clock P. M., pursuant to motion.

President Jones in the Chair.

On roll-call Messrs. Baker, Braden, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Eight members—were present.

ADOPTION OF REPORT OF THE COMMITTEE ON ENGINEERING IN REFERENCE TO THE AWARD OF CONTRACTS FOR SUB AND SUPERSTRUCTURES OF BRIDGES ACROSS THE CHICAGO RIVER AT CANAL AND MAIN STREETS AND ASHLAND AVENUE.

The President announced that the special

matter under consideration was the report of the Committee on Engineering, presented to the Board at the meeting held January 30, 1901, (page 6972 of proceedings), in reference to the award of contracts for the sub and superstructures of bridges across the Chicago River at Canal and Main Streets and Ashland Avenue, action on which had been deferred on motion of Mr. Jones.

Mr. Braden, seconded by Mr. Legner, moved that the report of the Committee on Engineering, presented to the Board at the meeting held January 30, 1901 (page 6972 of the Proceedings), in reference to the award of contracts for the sub and superstructures of bridges across the Chicago River at Canal and Main streets and Ashland Avenue, be adopted and the recommendations contained therein concurred in.

The roll being called it was so ordered.

Yeas—Messrs. Braden, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Seven

*Nays*—Mr. Baker—One.

*Absent*—Mr. Carter.

AUTHORITY TO ADJUDICATE THE SUIT  
OF THE CARNEGIE STEEL COMPANY,  
LIMITED, AGAINST THE SANITARY  
DISTRICT OF CHICAGO.

Mr. Wenter, seconded by Mr. Cloldt,  
moved that the adjudication of the suit of  
the Carnegie Steel Company, Limited,  
against the Sanitary District of Chicago be  
referred to the Committee on Engineering,  
to confer with the Chief Engineer of the  
District as to the amount of damage actu-  
ally sustained; said Committee to have  
full power to act in the premises in adjudi-  
cating said case on behalf of the Board,

and to report its action to the Board at a  
later date to be made a matter of record.

The roll being called the motion was  
adopted.

*Yeas*—Messrs. Baker, Braden, Cloldt,  
Jones, Legner, Smyth, Webb and Wenter  
—Eight.

*Nays*—None.

ADJOURNMENT.

On motion of Mr. Smyth, seconded by  
Mr. Cloldt, the Board then adjourned.

*A. R. Porter.*  
CLERK



February 2,]

—6962—

[1901

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

FEBRUARY 6, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Sixteenth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, on Wednesday, February 6, 1901, at 2 o'clock P. M.

In the absence of the President, the Vice-President, Mr. Baker, called the Board to order.

On roll-call Messrs. Baker, Braden, Carter, Cloldt, Legner and Wenter—six members—were present.

Mr. Webb arriving subsequently.

**MINUTES.**

On motion of Mr. Wenter, seconded by Mr. Legner, the minutes of the regular meeting held January 30, 1901, and the adjourned regular meeting held February 2, 1901, were approved as printed.

**VOUCHER.**

The Clerk presented the following voucher:

*Law Department.*

Charles C. Gilbert (legal services)..\$250 00

Mr. Carter, seconded by Mr. Legner moved that the voucher as read and shown above be approved and ordered paid.

The roll being called the motion was adopted.

*Yeas*—Messrs. Braden, Baker, Carter Cloldt, Legner and Wenter—Six.

*Nays*—None.

## MONTHLY REPORT FROM THE TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of January, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

*Receipts.*

Balance on hand at date of last report.....	\$ 1,826,544 99
From A. R. Porter, Clerk, Account C. C. Gilbert, Attorney.....	500 00
From A. R. Porter, Clerk, Account C. C. Gilbert, Attorney.....	426 14
From A. R. Porter, Clerk, Construction Account.....	535 65
From Chicago National Bank, Interest Account.....	1,414 48
From Illinois Trust and Savings Bank, Interest Account.....	703 21
From Equitable Trust Company, Interest Account.....	339 70
From Home Savings Bank, Interest Account.....	339 72
Total cash received for month.....	4,258 90
	<u>\$ 1,830,803 89</u>

*Disbursements.*

Clerical Department.....	\$ 1,092 64
Treasury Department.....	875 01
Engineering Department.....	6,666 39
Construction Account.....	32,915 64
Law Department.....	3,577 63
General Account.....	2,095 10
Isham Randolph, Chief Engineer.....	28 90
P. C. C. & St. L. Ry. Co.....	877 25
Chicago Junction Railway Company.....	188 63
Chicago Terminal Transfer Railway Company.....	188 63
Police Department.....	1,718 08
Maintenance Account.....	3,593 98
Tax Warrants Paid.....	4,258 08
Interest Paid on Tax Warrants, Levy 1899.....	189 84
Total cash disbursed.....	\$ 57,272 78
Balance this date, in banks as per schedule endorsed hereon.....	1,773,531 11
	<u>\$ 1,830,803 89</u>

*Schedule.*

Chicago National Bank.....	\$ 881,938 47
Illinois Trust and Savings Bank.....	415,668 86
Equitable Trust Company.....	250,000 00
Home Savings Bank.....	300,000 00
National Bank of Illinois.....	25,938 78
Total.....	<u>\$ 1,773,531 11</u>

CHICAGO, February 4, 1901.

F. M. BLOUNT, *Treasurer.*

By S. P. BLOUNT, *Assistant Treasurer.*

**REPORT IN REFERENCE TO RELEASE OF  
OFFICIAL BOND OF CHARLES C. GILBERT,  
FORMER ATTORNEY OF THE DISTRICT.**

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee, recommending that the accounts of former Attorney Charles C. Gilbert be approved, and that the sureties on the official bond of Mr. Gilbert be released and discharged from further liability; that a warrant be drawn in favor of A. R. Porter, Clerk, for \$2,214.75, being the amount credited on vouchers, and the Clerk directed to deposit said warrant with the Treasurer of the District, and the account of Mr. Gilbert be credited with same.

The following is the report:

CHICAGO, February 6, 1901.

*To the Honorable, the Board of Trustees of  
the Sanitary District of Chicago:*

GENTLEMEN — Your Committee on Finance begs leave to report a communication from C. C. Gilbert, former Attorney for the District in regard to the Emergency Fund of the Law Department, in which he reports receipts and expenditures as follows:

December 21, 1898:

Awarded (Proceedings,  
5350).....\$1,000 00

March 23, 1899:

Awarded (Proceedings,  
5592)..... 2,000 00

November 15, 1899:

Awarded (Proceedings,  
6122)..... 3,000 00  
—————\$6,000 00

November 23, 1900:

Costs in the McGuire  
case, received from  
John J. Coburn, At-  
torney.....\$ 100 80

Interest received at vari-  
ous times and deposited  
to the credit of the At-  
torney in the Chicago  
National Bank..... 5 52

Total.....\$ 106 32

Total amount of Emergency

Fund.....\$6,106 32

December, 1900:

Cash (checks) to A. R.

Porter, Clerk of the  
Sanitary District.....\$3,891 57  
Amount credited on  
vouchers approved by  
the Committee on Fi-  
nance..... 2,214 75

Total.....\$6,106 32

Your Committee having duly investi-  
gated the several items and amounts, as  
above set forth, recommends that said  
communication be placed on file and that  
a warrant be drawn in favor of A. R.  
Porter, Clerk of the District, for the sum of  
twenty-two hundred and fourteen dollars  
and seventy-five cents, the amount credited  
on vouchers approved by your Committee  
on Finance, and that the said Clerk be and  
he is hereby authorized and directed to de-  
posit said warrant with the Treasurer of  
the District, and that the account of the  
former Attorney, C. C. Gilbert, be credited  
with the same.

Your Committee further recommends  
that the sureties on the official bond of Mr.  
Gilbert be released and discharged from  
further liability thereon.

Respectfully submitted,

(Signed) ZINA R. CARTER,  
Chairman.

J. C. BRADEN,  
FRANK X. CLOIDT,  
WM. H. BAKER,  
WM. LEGNER,  
FRANK WENTER,  
Committee on Finance.

(One enclosure.)

Mr. Carter, seconded by Mr. Cloidt,  
moved that the report be adopted and the  
recommendations contained therein con-  
curred in.

The roll being called, it was so ordered.

*Yeas* — Messrs. Baker, Braden, Carter,  
Cloldt, Legner and Wenter—Six.

*Nays*—None.

**REPORT IN REFERENCE TO PAYMENT OF  
TAXES ON REAL ESTATE IN WILL  
COUNTY, ILLINOIS.**

Mr. Carter, Chairman of the Committee  
on Finance, presented a report from the  
Committee in reference to the payment of

taxes on real estate, owned by the District in Will County, Illinois, recommending that a voucher be drawn in favor of the County Collector of Will County, Illinois, in the sum of \$2,523.78, for taxes due for the year 1900.

The following is the report:

CHICAGO, February 6th, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance herewith presents a communication from the Attorney of the District, transmitting a communication from the County Clerk of Will County, Illinois, together with bill for taxes on the property belonging to the District in said County.

Your Committee further reports that the above matter of taxes has been carefully investigated, and the bill submitted found to be correct, and therefore recommends that a voucher be drawn in the usual form, in favor of the County Clerk of Will County, Illinois, in the sum of twenty-five hundred and twenty-three dollars and seventy-eight cents (\$2,523.78), in payment for the amount due as taxes on the real estate owned by the District in said Township for the year 1900.

Respectfully submitted,

(Signed) ZINA R. CARTER,  
*Chairman.*  
FRANK WENTER,  
WM. H. BAKER,  
FRANK X. CLOIDT,  
JOS C. BRADEN,  
WM. LEGNER,  
*Committee on Finance.*

(Four enclosures.)

Mr. Carter, seconded by Mr. Cloidt, moved that the report be adopted and the recommendation contained therein concurred in.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Legner and Wenter—Six.

*Nays*—None.

REPORT IN REFERENCOR TO RELEASE OF ORIGINAL BOND OF THE TOLEDO BRIDGE COMPANY ON FILING A NEW BOND IN THE SUM OF TWO THOUSAND DOLLARS.

Mr. Carter, Chairman, presented a re-

port from the Committee on Finance recommending that The Toledo Bridge Company be released on the bond given on its contract for the construction of the Belt Railway Company of Chicago's bridge across the Main Channel on Contract Section "K," provided that said Toledo Bridge Company shall furnish a new bond in the penal sum of \$2,000.00.

The following is the report:

CHICAGO, February 6th, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance herewith reports that a communication has been received from the Toledo Bridge Company requesting a release of its bond furnished by said company upon its contract for the construction of the Belt Railway Company of Chicago's Bridge across the Main Channel on Contract Section "K."

Final payment has been made to said company upon said contract, excepting the sum of eleven hundred and ninety-seven dollars and seventy-seven cents (\$1,197.77), (page 6909 of the Proceedings) by order of the Trustees, and the Chief Engineer has certified to the completion of the contract as above mentioned.

The Committee advises that, in its opinion, it is expedient to require the execution of a smaller bond to be given in lieu of the original bond on said contract.

The Committee therefore recommends that the surety on the original bond be released from further liability thereon, the contractor to remain liable thereon, provided said contractor shall furnish a new bond in the penal sum of two thousand dollars (\$2,000) with surety thereon satisfactory to your Committee on Finance.

Respectfully submitted,

(Signed) Z. R. CARTER,  
*Chairman.*  
FRANK X. CLOIDT,  
J. C. BRADEN,  
WM. LEGNER,  
WM. H. BAKER,  
FRANK WENTER,  
*Committee on Finance.*

(Three enclosures.)

Mr. Carter, seconded by Mr. Cloidt,



moved that the report be adopted, and the recommendations contained therein concurred in.

The roll being called the report was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner and Wenter—Six.

*Nays*—None.

**APPROVAL OF BONDS FOR THE ERECTION OF SUBSTRUCTURES FOR BRIDGES ACROSS THE CHICAGO RIVER AT CANAL AND MAIN STREETS AND ASHLAND AVENUE.**

Mr. Carter, Chairman, presented a report from the Committee on Finance, recommending that the surety bonds of Lydon & Drews Company for the erection of the substructures of the bridges across the Chicago River at Canal and Main Streets, and the surety bond of Page & Shnable on its contract for the erection of the substructure for the bridge across the Chicago River at Ashland Avenue, be approved.

The following is the report:

"CHICAGO, February 6th, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance beg leave to report that it has examined the bond given by Lydon & Drews Company for the erection of a substructure for the bridge across the Chicago River at Canal Street, said bond being in the sum of fifteen thousand (\$15,000.00) dollars, with the City Trust Safe Deposit and Surety Company, of Philadelphia, as surety; also the bond of said Lydon & Drews Company for the erection of the substructure for the bridge across the Chicago River at Main Street, with the same surety as above mentioned, and in the sum of fifteen thousand (\$15,000.00) dollars, and the bond given by Page & Shnable for the erection of the substructure for the bridge across the Chicago River at Ashland Avenue, in the sum of fifteen thousand (\$15,000.00) dollars, with the said City Trust Safe Deposit and Surety Company, of Philadelphia, as surety. Your Committee finds each of said bonds to be executed in proper form, and hereby approves said surety on each of said

bonds, and recommends that the same be approved by your Honorable Body.

Respectfully submitted,

(Signed) ZINA R. CARTER,  
Chairman.  
FRANK WENTER,  
FRANK X. CLOIDT,  
WM. H. BAKER,  
WM. LEGNER,  
J. C. BRADEN,  
Committee on Finance.

Mr. Carter, seconded by Mr. Cloldt, moved that the report be adopted and the recommendations contained therein concurred in.

The roll being called, the report was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner and Wenter—Six.

*Nays*—None.

**REPORT AUTHORIZING THE CHIEF ENGINEER TO PURCHASE PLANS OF THE WASHINGTON STREET TUNNEL FROM SAMUEL ARTINGSTALL.**

Mr. Braden, Chairman, presented a report from the Committee on Engineering recommending that the Chief Engineer be authorized to purchase certain plans of the Washington Street tunnel from Samuel Artingstall for the sum of \$250.00.

The following is the report:

CHICAGO, February 6th, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering begs leave to report a communication from the Chief Engineer in reference to the purchase of plans of the Washington Street tunnel from Samuel Artingstall. By direction of your Committee, the Chief Engineer made a request in writing to the proper city officials for the information contained in said plans, and was unable to procure same.

As these plans contain information which is of great value to the expert commission in the formation of its report, your Committee recommends that the Chief Engineer be authorized to purchase same

from the said Samuel Artingstall for the sum of two hundred and fifty (\$250.00) dollars.

Respectfully submitted,

(Signed) J. C. BRADEN,  
Chairman.

WM. H. BAKER,  
FRANK X. CLOIDT,  
Z. R. CARTER,  
FRANK WENTER,  
WM. LEGNER.

*Committee on Engineering.*

(One enclosure.)

Mr. Braden, seconded by Mr. Legner, moved that the report be adopted, and the recommendations contained therein concurred in.

The roll being called the report was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Legner and Wenter—Six.

*Nays*—None.

REPORT EMPOWERING THE CHIEF ENGINEER TO SELL A QUANTITY OF STONE FROM THE SPOIL BANKS NEAR JOLIET, ILLINOIS.

Mr. Braden, Chairman, presented a report from the Committee on Engineering in reference to the selling of stone from the spoil banks near Joliet, Illinois, recommending that not to exceed six car loads of said stone be sold to August Ehrhardt, of Beecher, Illinois, at 15 cents per cubic yard.

The following is the report:

CHICAGO, February 6, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering, to which was referred the request of August Ehrhardt for the purchase by him of stone at Joliet, Ill., near the Canal, begs leave to report that upon full and careful investigation they consider fifteen cents per cubic yard a just and fair price for such stone, and recommend that the Chief Engineer of the District be empowered to sell to said August Ehrhardt a certain quantity, not exceeding

six (6) carloads of said stone, situate at Joliet, Ill., near the Canal.

Respectfully submitted,

(Signed) JOS. C. BRADEN,  
Chairman.

WM. H. BAKER,  
FRANK WENTER,  
FRANK X. CLOIDT,  
Z. R. CARTER,  
WM. LEGNER.

*Committee on Engineering.*

(One enclosure.)

Mr. Braden, seconded by Mr. Legner, moved that the report be adopted and the recommendations contained therein concurred in.

The roll being called the report was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Legner and Wenter—Six.

*Nays*—None.

REPORT FROM SPECIAL COMMITTEE IN REFERENCE TO REMOVING CERTAIN OBSTRUCTIONS IN THE CHICAGO RIVER OVER THE WASHINGTON STREET TUNNEL.

Mr. Carter, Chairman of the Special Committee of three appointed by the Board at the meeting held January 23, 1901 (page 6982 of the Proceedings), to confer with the city authorities in reference to the removal of certain obstructions in the Chicago River over the Washington Street tunnel, presented a report recommending that the Chief Engineer be authorized to remove said obstructions.

The following is the report:

CHICAGO, February 6, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—We, your Special Committee appointed to investigate the suggestions made by our Chief Engineer for the improvement of the west opening of the Washington Street Draw Bridge by removing obstructions ascertained by soundings to exist on top of the tunnel, which obstructions contract the opening to an extent which prevents vessels from utilizing

the full depth of water which it is possible to obtain over said tunnel, have to report as follows: After conference and advice had with the Assistant Commissioner of Public Works and the City Engineer, we recommend that the Chief Engineer be authorized and ordered to remove the obstructions in question, as we are satisfied from an examination of the tunnel plans and discussion of the situation with Mr. Conlton, who was Superintendent for Fitz Simons & Connell when they reconstructed the tunnel, that the brick work which forms this most troublesome obstruction can be removed without risk to the safety or efficiency of the tunnel and thereby substantial and immediate relief be afforded to navigation interests.

Respectfully submitted,

(Signed) ZINA R. CARTER,  
FRANK X. CLOIDT,  
WM. LEGNER.

Mr. Carter, seconded by Mr. Cloidt, moved that the report be adopted and the recommendation therein contained concurred in.

The roll being called the report was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Legner and Wenter—Six.

*Nays*—None.

Excused and not voting, Mr. Webb.

#### REQUEST FOR AN ADDITIONAL EMPLOYEE FOR LAW DEPARTMENT.

The Clerk presented a communication from Mr. James Todd, Attorney of the District, requesting that he be allowed a special man at a salary of not to exceed \$150.00 per month for the purpose of assisting in the preparation of cases, such as getting witnesses, looking up facts and data which are necessary in the successful preparation of cases for trial.

Mr. Carter, seconded by Mr. Cloidt, moved that the communication be referred to the Committee on Judiciary.

The motion prevailed unanimously and it was so ordered.

#### PROPOSITION TO LEASE ACRE PROPERTY SITUATED ON CONTRACT SECTION "F," TOWN OF LYONS.

The Clerk presented a communication

from Patrick Sullivan of Lyons, Illinois, offering to lease from the District that part of the southeast quarter of the northeast quarter of Section 12, Township 28 north, Range 12, east of the Third Principal Meridian, lying north of a line 200 feet distant from and parallel to, measured at right angles, the north bank of the Main Drainage Channel and south of the south bank of the old channel of the Des Plaines River, situated in Contract Section "F," in the Township of Lyons, and containing 20 acres, more or less, at an annual rental of \$70.00.

Mr. Braden, seconded by Mr. Cloidt, moved that the communication be referred to the Committee on Finance.

The motion prevailed unanimously, and it was so ordered.

#### ORDER FOR THE RETURN OF CHECKS DEPOSITED WITH THE CLERK BY BIDDERS FOR THE ERECTION OF SUB AND SUPERSTRUCTURES OF BRIDGES AT CANAL, MAIN AND HARRISON STREETS AND ASHLAND AVENUE.

Mr. Cloidt, seconded by Mr. Braden, moved the adoption of the following order:

*Ordered*, That the Clerk of the District be and he is hereby authorized and directed to return all checks to the respective bidders upon the sub and superstructures of the bridges across the Chicago River at Canal and Main Streets and Ashland Avenue, as soon as the contracts for the said bridges have been executed, and the bonds of said contractors approved by the Committee on Finance; and it is further

*Ordered*, That the Clerk of the District is hereby authorized and directed to return all checks to the respective bidders upon the sub and superstructure of the bridge across the Chicago River at Harrison Street, except the check of the lowest bidder on the sub and superstructure respectively on said bridge, which will be held until the further order of the Board.

The roll being called the order was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Legner, Webb and Wenter—Seven.

*Nays*—None.

ORDER CLOSING THE OFFICES OF THE  
SANITARY DISTRICT ON TUESDAY,  
FEBRUARY 12TH AND FRIDAY, FEB-  
RUARY 22ND, 1901.

Mr. Cloldt, seconded by Mr. Legner,  
moved the adoption of the following order:

*Ordered,* That offices of the Sanitary  
District of Chicago be and the same are  
hereby ordered closed on Tuesday, Feb-  
ruary 12, 1901, the same being "Lincoln's  
Birthday," and Friday, February 22, 1901,  
the same being "Washington's Birthday,"  
both of which days are legal holidays.

The roll being called the order was  
adopted.

*Yeas*—Messrs. Baker, Braden, Carter,  
Cloldt, Legner, Webb and Wenter—Seven.

*Nays*—None.

DISTRICT TO PROCEED WITH THE EREC-  
TION OF THE SUBSTRUCTURE FOR  
BRIDGE ACROSS THE CHICAGO RIVER  
AT CANAL STREET.

Under the head of new business,  
Mr. Carter brought up the question of ar-  
bitration of the differences existing be-  
tween the Sanitary District and the au-  
thorities of the City of Chicago, regarding  
the plans for the substructure for the Canal  
Street Bridge, stating that there were two

ways of settling the question satisfactorily  
to the City of Chicago—to appoint a board  
of arbitration (as was suggested some  
time ago), the Sanitary District to pay the  
cost of such arbitration, or for the District  
to guarantee the bridge during the life of  
same.

Mr. Wenter, seconded by Mr. Webb,  
moved that the Sanitary District proceed  
with the construction of the substructure  
of the Canal Street Bridge, in accordance  
with the plans and specifications of the  
District, and that the District assume the  
responsibility as to its stability, and to  
turn the same over to the City of Chicago  
when completed.

The roll being called, the motion made  
by Mr. Wenter was adopted.

*Yeas*—Messrs. Baker, Carter, Cloldt, Leg-  
ner, Webb and Wenter—Six.

*Nays*—Mr. Braden—One.

#### ADJOURNMENT.

On motion of Mr. Braden, seconded by  
Mr. Legner, the Board adjourned.

*A. R. Porter.*  
CLERK

**PROCEEDINGS**  
 —OF THE—  
**BOARD OF TRUSTEES**  
 —OF THE—  
**SANITARY DISTRICT OF CHICAGO.**

FEBRUARY 13, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Seventeenth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Wednesday, February 13, 1901, at 2 o'clock P. M.

In the absence of the President, the

Vice-President, Mr. Baker, called the Board to order.

On roll call, Messrs. Baker, Braden, Carter, Cloidt, Legner, Smyth, Webb and Wenter—eight members—were present.

**MINUTES.**

On motion of Mr. Cloidt, seconded by Mr. Legner, the minutes of the regular meeting held February 6, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

Lydon & Drews Company (C. T. T. R. R. Bridge).....\$	58 00
Lydon & Drews Company (Van Buren Street approach) .....	148 50

A. R. Porter, Clerk (Force Account Joliet work) .....	\$ 76 84	
Green's Dredging Company (Sec. K, Belt Railway Co. Bridge) .....	2,795 00	
	<u>\$</u>	3,072 84

## ENGINEERING DEPARTMENT.

A. P. Little (typewriter paper) .....	\$ 2 50	
Dennison Manufacturing Company (shipping tags) .....	6 15	
N. S. Blue Print Paper Company (blue prints) .....	20 20	
John F. Higgins (printing) .....	12 00	
Rand McNally & Co. (map) .....	8 00	
William L. Mitchell (map) .....	20 00	
W. H. Salisbury & Co. (hip boots) .....	20 40	
South Side Lumber Company (lumber) .....	7 86	
H. W. Buchman (rent river office) .....	15 00	
Edmund Kandler & Co. (repairing) .....	4 70	
H. Isak (gauge reading) .....	10 00	
Western Photo Paper Company (paper) .....	15 00	
Cameron, Amberg & Co. (stationery) .....	68 10	
Pearson Bros. (blue prints) .....	6 82	
Eugene Dietzgen Company (blue prints) .....	118 02	
Keuffel & Esser Company (blue prints) .....	50 66	
G. M. Wisner (expense) .....	10 68	
W. T. Keating (expense) .....	13 76	
W. T. Keating (expense) .....	35 49	
A. R. Porter, Clerk (Joliet work) .....	88 65	
Sanborn-Perris Map Company (atlas) .....	175 00	
Samuel G. Artingstall (Washington Street Tunnel plans) .....	250 00	
James A. Seddon (professional services) .....	300 00	
August Ziesing (inspecting Belt Railway Bridge material) .....	1,490 16	
	<u>\$</u>	2,739 15

## LAW DEPARTMENT.

James Todd, Attorney (postage stamps) .....	\$ 28 00
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## GENERAL ACCOUNT.

Samuel L. Hanks (ice) .....	\$ 15 00	
W. T. Keating (expense) .....	23 85	
John F. Higgins (printing Proceedings—December and January) .....	385 27	
J. J. Bryant, Receiver (rent offices January, 1901) .....	458 33	
	<u>\$</u>	882 45

## POLICE DEPARTMENT.

E. J. Coen (expense) .....	\$ 25 00
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## MAINTENANCE ACCOUNT.

Martin & Morehead (mantles, Bridgeport) .....	\$ 1 05	
The John Davis Company (gauges, Bridgeport) .....	4 29	
John Spry Lumber Company (lumber, Bridgeport) .....	5 04	
Western Engineers' Supply Company (tallow, warehouse) .....	2 10	
Thos. F. Ryan (coal, Lockport) .....	15 25	
Wm. O'Connell (hardware, Lockport) .....	5 51	
Heldmaier & Neu (moving boom, Joliet) .....	97 18	
	<u>\$</u>	180 42
Grand total .....	<u>\$</u>	<u>6,877 86</u>

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

#### MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department being for the month of January, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

"CHICAGO, February 6th. 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to transmit the report of the Law Department for the month of January. A. D. 1901.

The following are the expenses of the Law Department:

#### SALARIES.

##### Pay Roll—

Attorneys .....	\$1,216 67	
Clerical.....	545 84	
	<u>          </u>	\$ 1,762 51
Legal services.....		760 67
Expert witnesses.....		2,925 00
Court expenses.....		162 60
Court reporting.....		1,280 65
Stationery.....		85 85
Law books.....		81 50
General expenses.....		345 94
John W. Nadelhoffer (expenses) .....		161 89
Total for January .	\$ 7,465 61	

The following cases have been begun during the month:

Walter Faraday, Administrator of the estate of Thomas Mahoney, deceased, versus Chicago and Western Indiana Railroad Company and Belt Railway Company of Chicago, General No. 205598, in the Circuit Court of Cook County. This is a personal injury suit that the Sanitary District is defending by virtue of an agreement between it and the defendants.

*Esther Jane Pearce versus the Sanitary*

District of Chicago, No. 18846, in the Circuit Court of Will County. This is a suit in case for \$2,500 00 for damages to certain property caused by overflow.

Joliet Pioneer Stone Company versus The Sanitary District of Chicago, General No. 18847, in the Circuit Court of Will County. This is a suit for damages, caused by flooding certain premises, for \$5,000 00.

In the matter of the petition of the West Chicago Park Commissioners for the assessment of the cost of improvements of the Southwest Boulevard, Special Assessment No. 6, in the Circuit Court of Cook County. This is an assessment levied against certain property of the District for the sum of \$7,674 00. Objections were filed on behalf of the District, and heard before Judge Hanecy, which resulted in said assessment being dismissed.

City of Chicago versus The Sanitary District of Chicago, General No. 214226, in the Circuit Court of Cook County. This is an assumpsit suit for \$2,000 00, in which the city seeks to recover certain moneys expended by it in operating the locks at Bridgeport.

The following proceedings have been had in the cases mentioned.

The case of Patrick H. O'Donnell, Administrator of the estate of Dominico D. Pietrautonio versus Qualey et al., was reached and passed to be taken up on notice.

Case of John A. Biggot versus The Sanitary District of Chicago has been passed for the purpose of investigating with a view to settlement.

Case of Carnegie Steel Company (Limited) versus The Sanitary District of Chicago was on Judge Kohlisaat's trial call, but has been passed and placed at the foot of the February Calendar.

In case of John Lussem versus The Sanitary District of Chicago, General No. 211737, in the Circuit Court of Cook County, Judge Neeley rendered an opinion holding that the District had the legal right to negotiate the last issue of bonds, that the injunction should be denied and the bill dismissed for want of equity. An appeal has been prayed and allowed to the Supreme Court.

In the condemnation case of The Sanitary District of Chicago versus Robert H.

Law, et al., General No. 205767, in the Circuit Court of Cook County, a jury was empaneled on the second of January, and returned a verdict on the twelfth. In this case the witnesses for the defendants placed a valuation of \$2.50 a square foot on the property to be taken, which, added to the value of the improvements \$2,266.00, as placed by their expert, made a total valuation of \$41,868.50. The witnesses for the petitioner placed a value per square foot at from \$1.00 to \$1.25. The jury returned a verdict for \$20,875.23, which, estimating the value of the improvements at the sum of \$1,779.45, placed by our witness, would make the finding of the jury \$1.12 per square foot. This is a substantial victory for the Sanitary District.

The following opinions have been rendered during the month:

In reference to the claim of the Ottawa Gas Light and Coke Company for damages alleged to have been sustained by reason of floods in the Illinois River.

As to the power of the District to construct a sewer connecting the sewers now existing in the Town of Cicero with the Drainage Channel.

As to the legal right of the District to enter into contracts for the construction of the additional span to the bridge for the Chicago Terminal Railroad.

In regard to the power of attorneys given by John A. Hoagland, et al., providing for the re-registering of certain bonds of the Sanitary District. This opinion was furnished the Treasurer.

In reference to the constitutionality of the statute permitting the District to be sued in counties other than Cook.

In addition to the above cases and proceedings in drafting of the Committee reports, ordinances and resolutions, together with the routine work of the office, have occupied the time of the Law Department.

Respectfully submitted,

(Signed) JAMES TODD,  
Attorney.

APPROVAL OF BONDS ON CONTRACTS FOR  
ERECTION OF SUPERSTRUCTURES OF  
BRIDGES ACROSS THE CHICAGO RIVER  
AT CANAL AND MAIN STREETS.

Mr. Carter, Chairman, presented a re-

port from the Committee on Finance in reference to the bonds of the American Bridge Company of New York on its contracts for the erection of the superstructures of bridges across the Chicago River at Canal and Main Streets, the bonds being in the sum of \$35,000.00 each, with the City Trust Safe Deposit and Surety Company of Philadelphia as surety, and recommending that said bonds be approved.

The following is the report:

CHICAGO, February 18th, 1901.

To the Honorable, the Board of Trustees of  
the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Finance begs leave to report that it has examined the bond given by the American Bridge Company of New York for the erection of the superstructure for the bridge across the Chicago River at Canal Street, said bond being in the sum of thirty-five thousand (\$35,000.00) dollars, with the City Trust Safe Deposit and Surety Company of Philadelphia as surety; also the bond of said American Bridge Company of New York for the erection of the superstructure for the bridge across the Chicago River at Main Street, with the same surety as above mentioned, in the sum of thirty-five thousand (\$35,000.00) dollars.

Your Committee finds each of said bonds to be executed in proper form and hereby approves said surety on each of said bonds, and recommends that the same be approved by your Honorable Body.

Respectfully submitted,

(Signed) Z. R. CARTER,  
Chairman.  
FRANK WENTZ,  
FRANK X. CLOIDT,  
THOMAS J. WEBB,  
W. H. BAKER,  
Committee on Finance.

Mr. Carter, seconded by Mr. Cloidt, moved that the report be adopted, and the recommendations contained therein concurred in.

The roll being called, it was so ordered.

Yeas—Messrs. Baker, Braden, Carter,



Cloidt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

**REPORT IN REFERENCE TO THE CONDEMNATION PROCEEDINGS IN THE CASE OF THE SANITARY DISTRICT OF CHICAGO VS. ROBERT H. LAW ET AL.**

Mr. Carter, Chairman, presented a report from the Committee on Finance recommending that the President and Clerk of the District be authorized and directed to pay, on the voucher of the Attorney of the District, to the County Treasurer of Cook County, to be held by said County Treasurer until the further order of the Court, the sum of \$30,875.23, being the amount awarded by the verdict and decree of the Circuit Court of Cook County to Robert H. Law, the Delaware, Lackawanna and Western Railroad Company and Elizabeth A. Ware as compensation for the property described in said report.

The following is the report:

CHICAGO, February 18th, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance herewith respectfully reports that a verdict has been rendered and a decree about to be entered by the Court in the condemnation proceedings begun by the District in the Circuit Court of Cook County, in the case of The Sanitary District of Chicago versus Robert H. Law et al. The verdict of the jury rendered therein as to the price of the property taken is as follows:

To Robert H. Law, The Delaware, Lackawanna and Western Railroad Company and Elizabeth A. Ware as just compensation for the taking of the premises herein described the sum of twenty thousand eight hundred and seventy-five and twenty-three one-hundredths (\$20,875.23) dollars.

Your Committee therefore recommends that the President and the Clerk of the District be and they are hereby authorized and directed to pay, on the voucher of the Attorney, to the County Treasurer of Cook County to be held by said County Treasurer until the further order of the Court, the sum of twenty thousand eight hundred and

seventy-five and twenty-three one-hundredths (\$20,875.23) dollars, being the amount awarded by the verdict of the jury to Robert H. Law, The Delaware, Lackawanna and Western Railroad Company and Elizabeth A. Ware for the taking of the following described property, situate in the City of Chicago, County of Cook and State of Illinois, to-wit:

That part of Lot one (1) and that part of Lots one (1), two (2), three (3), four (4), five (5) and six (6) in Thos. Stinson's subdivision of Lot two (2) in Block fourteen (14) in Canal Trustees' subdivision of the west half of Section twenty-one (21) in Township 39 North, Range 14 East of the Third Principal Meridian; and so much of the southeast quarter as lies west of the South Branch of the Chicago River, lying southeasterly of the following described line: Beginning at a point on the north line of said Lot one (1), Block fourteen (14), 238 feet east of the northwest corner of said Lot one (1), measured along said north line; running thence southwesterly to a point on the dividing line, between Lots two (2) and three (3) in said Block (14) fourteen, 190.5 feet southeasterly of the northwest corner of said Lot three (3), excepting therefrom the property recently purchased by the United States Government for the purpose of widening the South Branch of the Chicago River.

Respectfully submitted,

(Signed) Z. R. CARTER,  
*Chairman,*  
FRANK WENTER,  
WM. LEGNER,  
J. C. BRADEN,  
WM. H. BAKER,  
*Committee on Finance.*

(One enclosure.)

Mr. Carter, seconded by Mr. Smyth, moved that the report be adopted and the recommendations contained therein concurred in.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

**REPORT IN REFERENCE TO THE ACCEPTANCE OF THE TAYLOR STREET BRIDGE BY THE CITY OF CHICAGO.**

Mr. Braden, Chairman, presented a report from the Committee on Engineering, transmitting a communication from the City Engineer accepting, on behalf of the City of Chicago, the Taylor Street Bridge, and recommending that the communication be printed and placed on file.

The following is the report:

CHICAGO, February 13, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering herewith transmits a communication from John Ericson, City Engineer of the City of Chicago, approved by L. E. McGann, Commissioner of Public Works, accepting on behalf of said City of Chicago the Taylor Street Bridge.

Your Committee therefore recommends that said acceptance be ordered printed in the proceedings of your Honorable Body and placed on file.

Respectfully submitted,

(Signed) JOS. C. BRADEN,  
*Chairman.*

FRANK X. CLOIDT.

ZINA R. CARTER,

WM. LEGNER,

THOMAS A. SMYTH,

FRANK WENTER.

*Committee on Engineering.*

(One enclosure.)

The following is the acceptance:

DEPT. OF PUBLIC W'KS, CHICAGO. }  
Bureau of Engineering. }  
John Ericson - - City Engineer. }

CHICAGO, January 30, 1901.

*To the Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On November 20th last the Taylor Street Bridge was tendered to the city by the President of your Honorable Board. Upon examination we found that some work remained to be done at that

time. Since then the bridge has been completed and is now in such condition that it can be operated and accepted. By authority of the Commissioner of Public Works I therefore herewith accept the bridge on behalf of the City of Chicago.

Yours respectfully,

JOHN ERICSON,  
*City Engineer.*

Approved:

L. E. MCGANN,  
*Commissioner of Public Works.*

By F. W. BLOCKI,  
*Deputy Com. of Public Works.*

Mr. Braden, seconded by Mr. Smyth, moved that the report be adopted and the recommendations contained therein concurred in.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

**OFFER OF J. B. WOODS TO PURCHASE FOUNDATION STONE.**

The Clerk presented a communication from J. B. Woods, of Boone Grove, Indiana, offering to purchase certain foundation stone, to be taken from the spoil banks of the Main Channel.

Mr. Braden, seconded by Mr. Cloidt, moved that the communication be placed on file.

The motion prevailed unanimously, and it was so ordered.

In connection with the above, Mr. Carter, seconded by Mr. Wenter, moved that the District proceed to advertise for the sale of stone and clay along the banks of the Main Channel.

Mr. Wenter stated that "with the permission of Mr. Carter, I want to amend it to the extent that we advertise in sections," and that the banks be cleared within five years.

Mr. Braden, seconded by Mr. Smyth, moved, as a substitute for the whole, that the matter in question be referred to the Committee on Engineering.

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The roll being called, the substitute motion made by Mr. Braden was carried by the following vote:

*Yeas*—Messrs. Baker, Braden, Cloldt, Legner and Smyth—Five.

*Nays*—Messrs. Webb and Wenter—Two.

Mr. Carter was excused from voting on this question.

ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Braden, the Board then adjourned.

*A. R. Porter.*  
CLERK

February 18,]

—6998—

[1901

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

FEBRUARY 20, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Eighteenth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, on Wednesday, February 20, 1901, at 2 o'clock P. M.

In the absence of the President, the Vice-President, Mr. Baker, called the Board to order.

On roll-call Messrs. Baker, Braden, Carter, Cloldt, Legner, Webb and Wenter—seven members—were present.

**MINUTES.**

Mr. Carter, seconded by Mr. Webb, moved that the minutes of the regular meeting held February 18, 1901, be approved as printed.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Webb and Wenter—Seven.

*Nays*—None.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

Lydon and Drews Company (Sec. O, rip-rap) .....	\$ 703 25
C. T. T. R. R. Co. (Sec. O, Pan Handle Bridge) .....	41 12

C. T. T. R. B. Co. (Sec. O, Pan Handle Bridge).....	\$ 250 00	
Chicago Junction Ry. Co. (Sec. O, Pan Handle Bridge).....	60 00	
The A., T. & S. Fe Ry. Co. (Sec. K, Belt Railway Bridge).....	30 25	
C. T. T. R. B. Co. (Sec. E, bridge).....	44 18	
Barrett Hardware Company (Sec. 15, power plant).....	7 25	
Heldmaier & Neu (Sec. 17, coffer dam).....	113 85	
Wilcox Bros. (Sec. 18, Dam No. 1).....	10 26	
Isham Randolph (sundries).....	160 09	
	<u>\$</u>	1,420 25

## ENGINEERING DEPARTMENT.

Isham Randolph (expense).....	\$	75 00
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## CLERICAL DEPARTMENT.

Goes Lithograph Company (printing).....	\$	11 50.
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## LAW DEPARTMENT.

Jake Herzog (witness fees).....	\$	3 00
Ezra Keller (witness fees).....		3 00
Geo. Welbourne (witness fees).....		5 00
J. D. Welsh (witness fees).....		5 00
John Miles (witness fees).....		5 00
William Mandel (witness fees).....		5 00
Marvin Calhoun (witness fees).....		5 00
Aug. Drebelow (witness fees).....		5 00
Jacob Keller (witness fees).....		10 00
J. B. Roberts (witness fees).....		15 00
Henry Briggs (witness fees).....		15 00
Geo. McCoy (witness fees).....		15 00
Fred Herzog (witness fees).....		20 00
W. T. Welbourne (witness fees).....		20 00
Geo. W. Waite (witness fees).....		25 00
S. W. Norton (witness fees).....		25 00
Chas. J. Young (witness fees).....		30 00
Frank Hachuel (witness fees).....		70 00
William H. Wallace (witness fees).....		100 00
Ed R. Polk (witness fees).....		125 00
Robert Carr (legal services).....		107 50
James Todd, Attorney (expense).....		180 05
	<u>\$</u>	793 55

## GENERAL ACCOUNT.

Isham Randolph (expense).....	\$	165 00
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## MAINTENANCE ACCOUNT.

Isham Randolph (expense).....	\$	283 00
Grand total.....	<u>\$</u>	<u>2,748 30</u>

Mr. Carter, seconded by Mr. Cloldt, moved that the vouchers as read and shown above be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Webb and Wenter—Seven.

*Nays*—None.

## MONTHLY REPORT FROM THE CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department, being for the months of December, 1900, and January, 1901, which was, on motion of Mr. Carter, ordered printed and placed on file.

The following is the report:

"CHICAGO, February 20, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith submit the report of the Clerical Department for the months of December, 1900, and January, 1901:

The total expenditures of the District for the months of December, 1900, and January, 1901, was \$978,794.44; and \$82,879.86, respectively; aggregating \$1,056,674.80, of which amount the sum of \$1,036,614.59 was paid in Regular Warrants and the sum of \$20,059.71 by the Treasurer of the District, for which no warrant was required. Of the amount paid by the Treasurer the sum of \$19,285.53 was for 1899 Tax Warrants redeemed and \$774.19 for interest on same.

The total amount expended on account of, and charged to, the Clerical Department was \$2,456.85, of which amount the sum of \$2,351.67 was for salaries and the sum of \$104.68 for general office expenses.

The total amount expended for account of, and charged to, the General Account was \$9,722.12, divided as follows:

Rent.....	\$ 976 66
Printing.....	145 48
Advertising.....	207 90
Furniture.....	24 00
Salaries....	5,716 68
Streams examination.....	287 21
Telephone line.....	1,719 80
General expenses.....	644 29

Total.....\$ 9,722 12

Of the total Tax Levy Warrants heretofore issued, the following amounts were still outstanding February 1, 1901:

Against the Tax Levy of 1896.....	\$ 10,968 89
Against the Tax Levy of 1899.....	30,959 28
Against the Tax Levy of 1900.....	879,209 17

Total.....\$ 421,181 79

The following is a tabulated statement of total expenditures for the month of December, 1900.

ACCOUNT.	Regular Warrants.	Paid by Treasurer.	Total for Month.
Engineering Department.....	\$ 6,528 95		\$ 6,528 95
Construction.....	178,812 88		178,812 88
Clerical Department.....	1,829 83		1,829 83
Law Department.....	5,600 61		5,600 61
Land.....	22,535 55		22,535 55
Treasury Department.....	875 00		875 00
General.....	5,188 29		5,188 29
Police Department.....	1,399 85		1,399 85
Maintenance.....	4,482 69		4,482 69
Bond.....	480,000 00		480,000 00
Interest and Premium.....	249,025 00		249,025 00
Emergency Fund, James Todd, Attorney...	2,000 00		2,000 00
P., C., C. & St. L. Ry. Co.....	699 00		699 00
Chicago Junction Railway Company.....	849 50		849 50
Chicago Terminal Transfer Ry. Company..	849 50		849 50
1899 Tax Warrants redeemed.....		\$ 15,027 44	15,027 44
Interest on Tax Warrants redeemed.....		591 85	591 85
Totals.....	\$958,175 65	\$ 15,618 79	\$ 978,794 44

The following is a tabulated statement of total expenditures for the month of January, 1901:

Account.	Regular Warrants.	Paid by Treasurer.	Total for Month.
Engineering Department.....	\$ 7,021 72	.....	\$ 7,021 72
Construction .....	51,050 76	.....	51,050 76
Clerical Department.....	1,127 02	.....	1,127 02
Law Department.....	7,464 61	.....	7,464 61
Treasury Department.....	408 26	.....	408 26
General .....	4,533 88	.....	4,533 88
Police Department.....	1,783 67	.....	1,783 67
Maintenance .....	4,918 67	.....	4,918 67
P., C., C. & St. L. Ry. Co.....	56 25	.....	56 25
C. T. T. R. Co.....	28 12	.....	28 12
Chicago Junction Railway Company.....	28 13	.....	28 13
Isham Randolph, Chief Engineer.....	22 90	.....	22 90
1899 Tax Warrants redeemed.....	.....	\$ 4,258 08	4,258 08
Interest on Tax Warrants redeemed.....	.....	182 84	182 84
Total .....	\$ 78,488 94	\$ 4,440 92	\$ 82,879 86

Respectfully submitted,

(Signed)

A. R. PORTER, *Clerk.*"

**APPROVAL OF BOND OF THE MASSILLON BRIDGE COMPANY FOR ERECTION OF SUPER-STRUCTURE OF BRIDGE ACROSS THE CHICAGO RIVER AT ASHLAND AVENUE.**

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee recommending that the bond of the Massillon Bridge Company of Massillon, Ohio, on its contract for the erection of the superstructure for the bridge across the Chicago River at Ashland Avenue, being in the sum of \$85,000.00, with the City Trust Safe Deposit and Surety Company of Philadelphia as surety, be approved.

The following is the report:

CHICAGO, February 20, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — Your Committee on Finance begs leave to report that it has examined the bond given by the Massillon Bridge Company of Massillon, Ohio, for the erection of the superstructure for the bridge across the Chicago River at Ashland Avenue, said bond being in the sum of thirty-five thousand (\$35,000.00) dollars

with the City Trust Safe Deposit and Surety Company of Philadelphia as surety.

Your Committee finds said bond to be executed in proper form, and hereby approves the surety on said bond, and recommends that the same be approved by your Honorable Body.

Respectfully submitted,

(Signed)

ZINA R. CARTER,

*Chairman.*

FRANK WENTER,

FRANK X. CLOIDT,

WM. LEGNER,

J. C. BRADEN,

THOMAS J. WEBB,

*Committee on Finance.*

Mr. Carter, seconded by Mr. Legner, moved that the report be adopted and the recommendation contained therein concurred in.

The roll being called the report was adopted.

*Yeas* — Messrs. Baker, Braden, Carter, Cloidt, Legner, Webb and Wenter—Seven.

*Nays*—None.



**NOTICE OF INTENTION TO ENTER SUIT  
AGAINST THE SANITARY DISTRICT OF  
CHICAGO.**

The Clerk presented a communication from Attorney F. T. Sullivan, representing the administrator of the estate of Cosimo La Mantia, deceased, notifying the Board of his intention to enter suit on behalf of said administrator against the Sanitary District, alleging that said Cosimo La Mantia, while walking over the iron bridge at Taylor Street, fell through the bridge, and further alleging that the fall caused his death.

Mr. Wenter, seconded by Mr. Carter, moved that the communication be referred to the Committee on Judiciary.

The motion prevailed unanimously, and it was so ordered.

**BILL FOR SERVICES RENDERED IN CON-  
NECTION WITH THE NORTH BRANCH OF  
THE CHICAGO RIVER.**

The Clerk presented a statement from Simon J. Forhan, being for services rendered in connection with the improvement of the North Branch of the Chicago River, amounting to \$135.00.

Mr. Braden, seconded by Mr. Cloldt, moved that the statement be referred to the Committee on Judiciary.

The motion prevailed unanimously, and it was so ordered.

**PRESENTATION OF BIDS FOR EXCAVAT-  
ING THROUGH THE SPOIL BANK ON THE  
NORTH SIDE OF THE MAIN CHANNEL AT  
THE END OF SECTION "K"; AND FOR  
EXCAVATING SOLID ROCK FROM THE  
SOUTH FORK OF THE SOUTH BRANCH OF  
THE CHICAGO RIVER.**

The Chair announced that, in conformity with the advertisements inviting proposals for excavating through the spoil bank on the north side of the Main Channel at the east end of Section "K"; and for excavating solid rock from the South Fork of the South Branch of the Chicago River, near Thirty-fifth Street, in the City of Chicago, duly published, giving sixty days notice, as required by the Sanitary District Act, the Board would now proceed to open bids received by the Clerk, in response to said advertisements.

The Clerk then proceeded to open the bids as shown hereafter.

At the conclusion of the reading of the bids, Mr. Braden, seconded by Mr. Wenter, moved that the bids just received be compiled, summarized and tabulated by the Chief Engineer and referred to the Committee on Engineering.

The motion prevailed unanimously, and it was so ordered.

The following is a schedule of the bids received for excavating through the spoil bank on the north side of the Main Channel at the east end of Section "K"; and for excavating solid rock from the South Fork of the South Branch of the Chicago River, near Thirty-fifth Street:

**SCHEDULE OF BIDS FOR GRADING ROADBED FOR A SPUR TRACK AT EAST END OF  
SECTION "K."**

*Bids Opened February 20, 1901.*

No. of Bid as Received.	NAME AND ADDRESS OF BIDDER.	Amount Deposited with Bid.
1	James A. Sackley, Chicago, Ill .....	\$ 200 00
2	M. H. McGovern & Co., Chicago, Ill .....	200 00
3	John Byrne, Chicago, Ill .....	200 00
4	James J. Reynolds, Chicago, Ill .....	200 00

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**SCHEDULE OF BIDS FOR EXCAVATING SOLID ROCK—SOUTH FORK OF THE SOUTH BRANCH  
OF THE CHICAGO RIVER NEAR THIRTY-FIFTH STREET.**

*Bids Opened February 20, 1901.*

No. of Bid as Received	NAME AND ADDRESS OF BIDDER.	Amount Deposited with Bid.
1	George W. Jackson Construction Company, Chicago, Ill.....	\$ 200 00
2	Lydon & Drews Co., Chicago, Ill.....	200 00

**THE BIDS IN DETAIL FOR GRADING ROADBED FOR A SPUR TRACK AT EAST END  
OF SECTION K.**

*In order of magnitude—Lowest bid first. Bids opened February 20, 1901.*

No. of Bid as Received.	No. of Bid in Order of Magnitude.	NAME OF BIDDER.	Excavation, 8,400 cu. yds.	
			Price per cu. yd.	TOTAL.
2	1	M. H. McGovern & Co.....	.24½	\$ 2,058 00
4	2	John Byrne.....	.27	2,268 00
3	3	James J. Reynolds.....	.28½	2,394 00
1	4	James A. Sackley.....	.84	2 856 00

**THE BIDS IN DETAIL FOR EXCAVATING SOLID ROCK FROM THE SOUTH FORK OF THE  
SOUTH BRANCH OF THE CHICAGO RIVER NEAR THIRTY-FIFTH STREET.**

*In Order of Magnitude—Lowest Bid First—Bids Opened February 20, 1901.*

No. of Bid as Received.	No. of Bid in Or- der of Magni- tude.	NAME OF BIDDER.	-A- Material Excavated and deposited by Contractors, 1,400 Cu. Yds.		-B- Material Excavated and Deposited on Lake Front, 1,400 Cu. Yds.	
			Price Per Cu Yd.	Total.	Price Per Cu Yd.	Total.
2	1	Lydon & Drews Co.....	\$ 6 35	\$ 8,890 00	\$ 6 55	\$ 9,170 00
1	2	Geo. W. Jackson Construction Co....	14 40	20,160 00	14 40	20,160 00

**ADJOURNMENT.**

On motion of Mr. Wenter, seconded by Mr. Braden, the Board adjourned.

*A. R. Porter.*  
CLERK

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

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FEBRUARY 27, 1901.

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**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Nineteenth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Wednesday, February 27, 1901, at 2 o'clock P..M.

President Jones in the Chair.

On roll call, Messrs. Baker, Braden, Carter, Cloidt, Jones, Legner, Smyth, Webb and Wenter—nine members—were present.

**MINUTES.**

On motion of Mr. Wenter, the minutes of the regular meeting held February 20, 1901, were approved as printed.

**SPECIAL MESSAGE FROM PRESIDENT JONES IN REFERENCE TO THE DEVELOPMENT OF THE DRAINAGE CANAL WATER-POWER.**

President Jones presented the following special message to the Board:

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The recent decision of the Supreme Court of Illinois prohibiting the City of Chicago from issuing bonds for the development of the Drainage Canal water-power, presents a problem calling for the immediate action of your Honorable Body. The time has come when to longer delay the development of this power is to disregard the interests of the taxpayers of the Sanitary District; and no effort which this Board can make, while the General Assembly is now in session, to secure the development of this power for the best purposes for which it is adapted should be for a day postponed. On the basis of the bids received from private corporations at the time the power was publicly advertised, an electric energy worth in rental one hundred thousand dollars per annum to the Sanitary District, is going to waste at Lockport and Joliet; and on the basis of the development of this power for the municipal purposes of the various municipalities, situated wholly or in part within the Sanitary District, and whose taxpayers have contributed to the construction of the Drainage Channel, a still greater benefit is possible to be derived.

The City of Chicago has reached its constitutional limitation in the matter of the issuing of bonds, and the full limit of the amount of taxes which it may levy for municipal purposes; and after two years delay in the hope that this power might be legally developed by the city, it is now obvious that nothing in that direction can be done by the City of Chicago without a constitutional amendment. To secure a constitutional amendment will require a two-thirds vote of the General Assembly at Springfield, the submission of the proposed amendment to a vote of the people of the entire State at the next general election nearly two years away, or in December, 1902, and the adoption of this amendment by a majority of all votes cast at that general election throughout the entire State. The work of development could

not be begun before the following summer, and on the basis of the estimated period of two years for the work of development and installation of plants, it would be four or five years from this time before either the City of Chicago or the Sanitary District could receive any benefit from this development of power. All this, too, is on the supposition that the General Assembly would be willing, by a two-thirds vote, to discard all other proposed constitutional amendments now pending in that body and adopt the single proposition for the benefit of the City of Chicago and that this amendment would subsequently be ratified by a vote of the people of the entire State—a supposition so improbable as hardly to be worthy of serious consideration.

On the other hand the Sanitary District is barred by no constitutional prohibition, and it needs but a slight amendment to the Sanitary District law to permit it to develop this power at once for the benefit of the taxpayers who have contributed for ten years to the construction of the Drainage Channel, and who have the first moral claim to its benefits. The Honorable John P. Wilson, former General Counsel of the Sanitary District, has held that under the existing law the Sanitary District has the right to sell its waterpower, to be developed by the purchaser, but that the District itself has no right to incur expenditures for the installation of that power without additional legislation. The people of this community, however, through the public press, have given unmistakable evidence of their desire that this power, if possible, should be developed for municipal purposes, and as a slight amendment to the Sanitary District law will permit this to be done by your Honorable Body, I therefore recommend that immediate steps be taken to present the desired legislation to the General Assembly now in session at Springfield. A form of bill is herewith submitted for the consideration of your Honorable Body, and if the policy I have outlined to have this power developed by the Sanitary District meets your approval, I ask for the earliest possible action.

No one disputes the proposition that the Drainage Canal water-power should be developed for the benefit of the people who have paid the taxes for the construction of the Drainage Channel. The only present

legal way they have to receive this benefit is to advertise this power and sell it to the highest public bidder, the power to be developed by the lessee. The present accepted view, however, is that the highest purposes for which it can be developed is for the municipal uses of Chicago and the various villages and towns, or parts thereof, lying wholly or in part within the Sanitary District. This includes all of the City of Chicago, except that portion lying south of Eighty-seventh street, whose citizens, through the influence of the manufacturing corporations therein situated, combated the proposition in the courts eleven years ago and succeeded in being left out of the District and thus escaping the ten years' taxes for the construction of the channel. It is poetic justice that that section should be deprived of the benefits of our expenditures until it is prepared to assume its just share of the burdens of the Sanitary District; and on the other hand, it would be shamefully unjust to deprive a portion of Cicero, the Town of Lyons, and the various other small municipalities which are a part of and have contributed to the taxes of the Sanitary District from sharing the benefits of public street lighting possible to be secured from the development of this power; I therefore recommend that a bill embodying the provisions of the one herewith submitted be presented to the General Assembly and action requested which will enable the Sanitary District by the levy of the small additional tax of one-fourth of one per cent. per annum to develop this power for the municipal lighting of Chicago and other cities and villages or parts of the same situated wholly or in part within the Sanitary District. This will solve the problem of municipal lighting for all time for these various municipalities. It will put this power to the use for which the citizens and tax-payers, as an abstract proposition, earnestly desire that it should be put. It will place this development wholly within one municipality, instead of dividing the expenditure between two as was the case of the recent contract between the Sanitary District and the City of Chicago and which has just been declared in violation of the Constitution, and it will provide that every tax-payer, high or low, whether a citizen of the Town of Lyons, or the Town of Cicero, or of the City of Chicago, shall

equally share in the benefits for which he has uncomplainingly paid his Sanitary District taxes for the past ten years; and last, and more important, it will permit this power to be developed at once, without a constitutional amendment, without years of delay manifestly inevitable if left to the bankrupt municipality of Chicago, and it will enable the money now expended by the City of Chicago for municipal lighting to be diverted to the cleaning of streets, removal of garbage, building of intercepting sewers, or other municipal purposes now so sadly neglected by reason of a lack of city revenue. The tax-payers of the Sanitary District who for five years have paid one and one-half per cent. per annum for the completion of the Drainage Channel will not seriously begrudge the payment of one-fourth of one per cent. (about one-sixth of this amount), for a period of three or four years, for the development of this power for the lighting of their streets, the operation of pumping stations, and the various other municipal purposes for which it may be adapted. If there is any doubt in the minds of the members of your Honorable Body as to disposition of the tax-payers of this community to bear the additional burden of one-fourth of one per cent. tax per annum for the development of this power, I suggest that another clause be attached to the bill herewith submitted, providing that before final action shall be taken by the Board of Trustees the proposition shall be submitted to the voters of the Sanitary District.

Respectfully submitted,

ALEX. J. JONES,

*President.*

Mr. Smyth, seconded by Mr. Baker, moved that the message of the President and the accompanying bill be referred to the Committee of the Whole to consider the recommendations made therein and report back to the Board.

Mr. Wenter, seconded by Mr. Webb, moved, as an amendment, that the consideration of the recommendations contained in the message submitted by the President be postponed until such time as the Special Expert Commission heretofore appointed by the Board, and which has under consideration the question of river improvement and other matters pertaining to the Sanitary District, make their report to the Board.

Mr. Carter, seconded by Mr. Webb, moved, as a substitute motion, that the matter in question be referred to the Committee on Engineering.

The roll being called on the substitute motion of Mr. Carter, it was lost.

*Yeas*—Messrs. Carter, Webb and Wenter—Three.

*Nays*—Messrs. Baker, Braden, Cloldt, Legner and Smyth—Five.

*Present and Not Voting*—Mr. Jones—One.

The Chair then directed the Clerk to call the roll on the amendment made by Mr. Wenter to postpone action.

The roll being called the amendment was lost by the following vote:

*Yeas*—Messrs. Webb and Wenter—Two.

*Nays*—Messrs. Baker, Braden, Carter, Cloldt, Legner and Smyth—six.

*Present and Not Voting*—Mr. Jones—One.

The Chair thereupon announced that the original motion made by Mr. Smyth, to refer the message and bill to the Committee of the Whole for consideration, was before the Board, and directed the Clerk to call the roll thereon.

The roll being called, Mr. Smyth's motion to refer the message and bill to the Committee of the Whole was adopted by the following vote:

*Yeas*—Messrs. Baker, Braden, Cloldt, Legner and Smyth—Five.

*Nays*—Messrs. Webb and Wenter—Two.

*Present and Not Voting*—Messrs. Carter and Jones—Two.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### PAY ROLLS.

Engineering Department (Div. of D. & D. and records, February, 1901)	\$ 3,166 25	
Engineering Department (Div. of Construction, February, 1901)	2,581 25	
Engineering Department (Special Commission, February, 1901)	631 04	
		\$ 6,318 54
Clerical Department (Clerk's roll, February, 1901)		983 83
Law Department (Attorney's roll, February 1901)		1,948 34
Treasury Department (Treasurer's roll, February, 1901)		375 00
General Account (General roll, February, 1901)	\$ 450 00	
General Account, (Special roll, February, 1901)	107 00	
General Account, (Trustees' roll, February, 1901)	2,833 83	
		2,890 83
Police Department (Marshal's roll, February, 1901)	\$ 1,650 10	
Police Department (Discharge roll)	44 44	
		1,694 54
Maintenance Account (Controlling Works roll, February, 1901)	\$ 550 00	
Maintenance Account (Bridgeport Pumping Station, February, 1901)	285 00	
		835 00
Total		\$ 14,995 08

#### CONSTRUCTION ACCOUNT.

Chicago Union Traction Co., (electric power, Taylor Street Bridge)	\$ 50 00	
Chicago Union Traction Co., (electric power, Taylor Street Bridge)	50 00	
American Bridge Co., (Section 17, waste gates)	96 50	
A. & P. Roberts Co., (eight-track bridge)	153 87	
Pennsylvania Steel Co. (C. T. T. R. R. Co. Bridge)	7,586 35	
		7,956 22
W. G. Derbyshire (inspecting C. T. T. R. R. Bridge)		100 00

## LAW DEPARTMENT.

John S. Runnells (Services General Counsel, December, 1900) .....	416 67	
John S. Runnells (Services General Counsel, February, 1901) .....	416 67	
The Frank Shepard Co. (law book) ..	3 00	
Joliet Water Works (water tax) .....	3 63	
James Todd, Attorney, (expense) .....	84 60	
R. H. Walter (typewriting) .....	40 00	
The Gunthorp-Warren Printing Co., (printing) .....	74 65	
		\$ 989 23

## POLICE DEPARTMENT.

D. C. McCarthy (expense) .....	\$ 14 68	
E. J. Coen (expense) .....	43 25	
		57 93
Grand total .....	\$ 24,078 45	

Mr. Carter, seconded by Mr. Cloldt, moved that the vouchers as read and shown above be approved and ordered paid.

The roll being called, it was so ordered.

*Yea*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

## ANNUAL REPORT OF THE CLERICAL DEPARTMENT.

The Clerk presented the annual report of the Clerical Department for the year ending December 31, 1900, which was, by unanimous consent, ordered printed and placed on file.

The following is the report:

CHICAGO, February 27, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I present herewith the annual report of the Clerical Department for the year ending December 31, 1900.

During the year there has been received \$8,728,482.39. Of this total amount the principal items are: Taxes for 1899, etc., \$3,878,217.68; from sale of ninth, tenth and eleventh issues of bonds, \$4,875 000; from warrants drawn against the tax levy for 1899, \$11,485.72; from warrants drawn against the tax levy for 1900, \$379,209.17; interest on balances of Sanitary District funds, \$10,589.48

Disbursements for the year were \$6,925,425 04. The principal items of this account, apart from regular departmental expenses,

are: For construction work, \$2,023,818 80; for right of way, \$105 800 23; for payment of maturing bonds, \$730,000; for interest on bonds, \$546,690; for redemption of warrants drawn against the 1896 tax levy, \$408 66; for redemption of warrants drawn against the 1898 levy, \$8,085; for the same against the 1899 levy, \$2,914,445 22; for interest on tax warrants redeemed, \$103,112.28; for maintenance of pumping plants, \$88,735.59; for capitalization and maintenance of bridges, \$20 648.

To date there have been issued tax warrants against the levy for 1900 to the amount of \$379,209.17. The warrants outstanding December 31, 1900, were as follows: Against the tax levy of 1896 \$10,963.89; against the levy for 1899, \$35 217.31; against the levy for 1900, \$379,209.17. All of the warrants issued against the levy for 1898 have now been redeemed.

The total amount of bonds issued to date by the Sanitary District is \$18 365,000. Of this total there is now outstanding \$14,005,000; \$4,860,000 having been redeemed.

For purposes of comparison I submit the following table, showing the total value of all property within the Sanitary District since its organization, as equalized by the State Board of Equalization:

Year.	Equalized Valuation.
1890 .....	\$217,458 360 00
1891 .....	254 011,212 00
1892 .....	241,869 737 00
1893 .....	242,438 804 00
1894 .....	244,253,105 00
1895 .....	240,144,952 00
1896 .....	241,824 319 00

1897.....	\$229,485,977 00
1898.....	218,299,977 00
1899.....	338 674,447 00
1900.....	269,287,109 00

\$487,975 July 1, 1901; \$47,500 October 1, 1901; \$130,000 November 1, 1901, and \$713,225 January 1, 1902—a total of \$1,406,200 for the current year.

There is also attached to this report a bond statement, showing in detail the data pertaining to the eleven issues of Sanitary District bonds. From this statement it will be seen that the following bonds and interest will be due on the dates specified: \$47,500 April 1, 1901; \$30,000 May 1, 1901;

A table of receipts and disbursements is also attached.

Respectfully submitted,

A. R. PORTER;  
Clerk.

SUMMARY OF NET RECEIPTS AND DISBURSEMENTS—SANITARY DISTRICT OF CHICAGO FOR THE YEAR 1900.

*Receipts.*

Balance on hand January 1, 1900.....	\$ 5,008 13
Tax Account, taxes, 1899, etc.....	3,878,217 63
Bond Account, ninth issue.....	1,000,000 00
Bond Account, tenth issue.....	1,000,000 00
Bond Account, eleventh issue.....	2,375,000 00
Accrued interest and premium on bonds.....	40,570 16
Interest on deposits.....	10,589 48
Tax Levy, 1899, warrants drawn against.....	11,485 72
Tax Levy, 1900, warrants drawn against.....	379,209 17
Jos. F. Haas, Clerk, Emergency Funds returned.....	17,590 01
Chas. C. Gilbert, Attorney, Emergency Funds returned.....	2,965 43
Angus & Gindele.....	12,854 79

*Disbursements.*

Engineering Department.....	\$ 126,455 06
Clerical Department.....	13,488 97
Treasury Department.....	2,239 80
Law Department.....	52,255 88
Police Department.....	29,543 74
General Account.....	98,743 79
Maintenance Account.....	88,735 59
Land Account.....	105,800 23
Construction Account.....	2,023,813 80
Bond Account, bonds retired.....	730,000 00
Interest on bonds.....	546,690 00
Tax Levy 1896, warrants redeemed.....	408 66
Tax Levy 1898, warrants redeemed.....	8,085 00
Tax Levy 1899, warrants redeemed.....	2,944,445 23
Interest on Tax Warrants redeemed.....	103,112 28
Capitalization and maintenance of bridges.....	20,648 00
Emergency Funds.....	16,501 48
Special Commission.....	8,075 97
Scherzer Rolling Lift Bridge Company.....	4,719 83
Smith & Eastman.....	4,507 75
Pittsburgh, Cincinnati, Chicago and St. Louis Ry. Co. ....	1,077 00
Chicago Junction Railway Company.....	588 50
Chicago Terminal Transfer Railroad Company.....	588 50
*Cash balance, December 31, 1900.....	1,808,015 43
	<u>\$ 8,783,440 52</u>
	<u>\$ 8,783,440 53</u>



\* Adding to this cash balance of \$1,803,015.48 the sum of \$18,529.51, being the amount of outstanding warrants not yet presented to the Treasurer for payment, we have the sum of \$1,826,544.99 which is the cash balance in the hands of the Treasurer, as shown by his Annual Report for the year ending December 31, 1900.

**BOND STATEMENT—SHOWING TOTAL AMOUNT ISSUED AND NET AMOUNT OUTSTANDING JANUARY 1, 1901.**

ISSUE.	Date of Issue.	Amount of Issue.	Date of first payment of Principal.	Amount outstanding Jan. 1, 1901.	Rate of Interest.
First.....	Nov. 1, 1892	\$ 2,000,000	Nov. 1, 1893	\$ 1,200,000	5 %
Second.....	Jan. 1, 1894	3,000,000	Jan. 1, 1895	1,950,000	5 %
Third.....	Aug. 1, 1894	3,000,000	July 1, 1895	2,100,000	5 %
Fourth.....	Feb. 1, 1895	4,000,000	Jan. 1, 1896	2,800,000	4½ %
Fifth.....	Feb. 1, 1896	800,000	Jan. 1, 1897	600,000	4½ %
Sixth.....	Jan. 15, 1897	800,000	Jan. 1, 1898	640,000	4½ %
Seventh.....	July 1, 1898	200,000	June 30, 1918	200,000	3½ %
Eighth.....	Jan. 2, 1899	190,000	Jan. 1, 1919	190,000	3½ %
Ninth.....	Jan. 1, 1900	1,000,000	Jan. 1, 1901	950,000	4 %
Tenth.....	July 1, 1900	1,000,000	July 1, 1901	1,000,000	4 %
Eleventh.....	Oct. 1, 1900	2,375,000	Oct. 1, 1902	2,375,000	4 %
Totals. ....	.....	\$18,365,000	.....	\$14,065,000	.....

## BOND STATEMENT SHOWING AMOUNT OF PRINCIPAL AND INTEREST DUE AND PAYABLE DURING THE YEAR JANUARY 2, 1901, TO JANUARY 1, 1902.

ISSUE.	INTEREST DUE APRIL 1, 1901.	INTEREST DUE MAY 1, 1901.	PRINCIPAL DUE JULY 1, 1901.	INTEREST DUE JULY 1, 1901.	INTEREST DUE OCT. 1, 1901.	PRINCIPAL DUE NOV. 1, 1901.	INTEREST DUE NOV. 1, 1901.	PRINCIPAL DUE JAN. 1, 1902.	INTEREST DUE JAN. 1, 1902.	GRAND TOTALS.
First.....		\$30,000		\$ 48,750		\$100,000	\$30,000	\$150,000	\$ 48,750	\$ 160,000
Second.....				52,500					48,750	247,500
Third.....			\$150,000	68,000				200,000	68,000	251,260
Fourth.....				13,500				40,000	13,500	336,000
Fifth.....				14,400					14,400	67,000
Sixth.....				8,500					3,500	68,800
Seventh.....				3,375					3,825	7,000
Eighth.....				19,000					19,000	88,000
Ninth.....			50,000	20,000				50,000	19,000	89,000
Tenth.....	\$47,500				\$47,500					95,000
Eleventh.....										
Totals .....	\$47,500	\$30,000	\$200,000	\$237,975	\$47,500	\$100,000	\$30,000	\$480,000	\$238,225	\$1,406,200

## ANNUAL REPORT OF THE TREASURY DEPARTMENT.

The Clerk presented the Annual Report of the Treasury Department for the year ending December 31, 1900, which was, by unanimous consent, ordered printed and placed on file.

The following is the report:

## ANNUAL REPORT OF RECEIPTS AND DISBURSEMENTS OF TREASURY DEPARTMENT FOR THE YEAR ENDING DECEMBER 31, 1900.

*Receipts.*

Balance on hand December 31, 1899.....		\$ 658,579 98
Received from tax levy, 1899.....	\$ 3,878,229 49	
Received from sale of bonds.....	4,375,000 00	
Received from premium on bonds sold.....	40,570 16	
Received from interest on monthly bank balance.....	10,589 48	
Received from Clerk of Board.....	146,606 97	
Total receipts from all sources.....		8,450,946 10
		<u>\$ 9,109,526 08</u>

*Disbursements.*

Paid Tax Warrants.....	\$ 2,952,988 88	
Paid Interest on Tax Warrants.....	103,112 28	
Paid Bonds.....	1,160,000 00	
Paid Interest on Bonds.....	769,515 00	
Paid Warrants drawn on Treasurer.....	2,297,414 98	
Total disbursements.....	\$ 7,282,981 09	
Balance on hand December 31, 1900.....		1,826,544 99
		<u>\$ 9,109,526 08</u>

Respectfully submitted,

F. M. BLOUNT, *Treasurer.*

By S. P. BLOUNT, *Assistant Treasurer.*

CHICAGO, January 4, 1901.

## MONTHLY REPORT OF THE ENGINEERING DEPARTMENT.

The Clerk presented the report of the Engineering Department for the month of January, 1901, which was, by unanimous consent, ordered printed and placed on file.

The following is the report:

CHICAGO, February 19, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith present the report of the Engineering Department for the month of January, 1901, giving the detailed operations of same.

The value of construction work done during the month was \$80,270.44, divided as follows: Main Channel, \$12,167.13; bridges, \$47,996.40; general, \$206.91.

Vouchers were issued on this account to the amount of \$56,096.58.

The engineering expenses for the month were \$8,774.98, divided as follows: Salaries, \$5,471.80; supplies, etc., \$3,303.18. The expenses at the Bridgeport Pumping Works were \$1,648.24, divided as follows: Salaries, \$427.84; supplies, etc., \$1,220.90. Details of above figures are given in tabulated statements submitted herewith.

*Division of Construction.*

Chicago River—Lydon & Drews Co. excavated 14,600 cubic yards of material from the South Branch, between Halsted and Twenty-second Streets, which work was discontinued on the 5th on account of the large amount of ice in the river. The amount was vouchered in January, together with 1,400 cubic yards of material exca-

valued at the new dock just north of Twelfth Street. On the 15th, this contractor began pulling dock and excavating for the widening of the river on the east side immediately north of Twenty-second Street.

The Taylor Street Bridge was completed and accepted by the City of Chicago on the 30th.

The iron erection on the east abutment of the C. T. T. R. R. Co.'s bridge was stopped on the second on account of water in the counterweight pits. The west abutment was completed on the 28th and the iron erection began unloading and erecting at this point on the 30th.

*Section O*—The eight-track bridge was practically completed and ready for operation at the end of the month. The bridge has not yet been painted.

The large flow in the Channel during the early part of the month had the effect of undermining several bents on the P. C. C. Ry. Co. and the C. J. Ry Co.'s trestles and it was found necessary to redrive same. The Pan Handle driver was employed on this work for about ten days.

*Section K*—The Green's Dredging Company finished the removal of the temporary trestles and unloaded all of the material at Robey Street on the 21st.

*Section 12*—Peter Finnegan, the contractor for moving the Norton scale house and scales and grading approaches to same, at Romeo, began work on the 28th, filling roadway to the new location of Norton scales and continued to the end of the month.

*Section 15*—Some trimming up of roadway repairs to the approaches of the Bear Trap Dam Bridge, etc., were made from the 2nd to the 5th. No other work was done at this point except the taking of flow measurements and the regular operating of the Controlling Works.

*Section 17*—The dredge worked in the Upper Basin from the 4th to the 17th, the last three and one-half days having been spent in excavating near the Economy Light and Power Co.'s plant. Owing to freezing weather, the work was closed down on the last mentioned date. The waste gates at the Economy Light and Power Co.'s plant were completed about the 15th, except the wooden strips, which were all in place on the 28th.

#### *General.*

*New Telephone System*—During the month about ten miles of wire was cut down and stolen, keeping the repair men busy replacing same.

*Bridgeport Pumping Works*—A portable boiler was installed in the engine house on the 2d to supply steam for turning over the engines and keeping the wells from freezing up, the regular boilers being out of service. After the boiler was connected up, the force was reduced to one engineer, two helpers and a watchman.

*Warehouse at Roby Street*—A force of five men worked up to the 20th cleaning and overhauling machinery. The force was then reduced to two men who acted as night and day watchmen, the regular policeman having been withdrawn. A portion of the house was partitioned off and fitted up for the use of the cement laboratory.

#### *Division of Designing and Drafting.*

The regular platting was continued on the atlas of the right-of-way. The following drawings were made: Maps of Chicago River, 200 ft. scale, showing proposed improvements from Lake Street to Ashland Avenue; profile of Chicago River showing borings; copy of Exhibit "C 1" and "C 2" in connection with I. & M. Canal case for Law Department; and tracings showing buildings along Chicago River from Lake Street to Twelfth Street.

Specifications for the Main, Harrison and Canal Streets and Ashland Avenue bridges were completed and the bids for these bridges, which were received on the 16th were tabulated. The plans in connection with the deflection of the eight-track bridge were checked and a plat showing the location of the Eighteenth Street bridge was prepared. The work of checking the State Street bridge plans, which were received on the 24th, was carried on to the end of the month.

#### *Division of Records.*

The work of this division for January was carried on in the usual manner.

I estimate the expenses of this department for the month of February, 1901, will be \$75,000.00.

Respectfully submitted,  
(Signed) ISHAM RANDOLPH,  
Chief Engineer.

**SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.**  
**CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF JANUARY, 1901.**

CLASSIFICATION.	ENGINEERING EXPENSES			Construction.	BRIDGEPORT P. WORKS.	
	Salaries.	Supplies, Etc.	Totals.		Salaries.	Supplies, Etc.
Maps and Plans for General Use.....	\$ 156 00	\$ 21 02	\$ 21 02	.....	.....	.....
Chicago River Survey.....	1,131 33	40 63	156 03	.....	.....	.....
Chicago River Improvement.....	167 00	387 87	1,459 30	\$3,430 00	.....	.....
Right of Way.....	970 83	9 06	176 06	.....	.....	.....
Flow Measurements.....	461 83	81 99	1,052 83	.....	.....	.....
Disposal Works and Joliet Project.....	110 00	269 86	730 74	7,189 30	.....	.....
Belt Ry. Co. of Chicago's Temporary Bridge, Main Channel, Section K.....	120 00	1,505 46	1,625 46	745 62	.....	.....
Belt Ry. Co. of Chicago's Permanent Bridge, Main Channel, Section K.....	80 00	.....	80 00	189 79	.....	.....
Southwest Boulevard, bridge Main Channel, Section O.....	273 33	68 50	366 83	15,499 11	.....	.....
Panhandle Permanent Bridge, Main Channel, Section O.....	138 30	57 96	196 30	.....	.....	.....
Canal Street Bridge, Chicago River.....	91 25	.....	91 25	291,379 80	.....	.....
Taylor Street Bridge, Chicago River.....	633 13	121 75	774 88	7,566 35	.....	.....
C. T. T. R. Co.'s Bridge, Chicago River.....	.....	.....	.....	238 95	.....	.....
Van Buren Street Approach Span, Chicago River.....	228 13	71 82	299 95	-51 15	.....	.....
Bear Trap Dam Bridge, Section 15.....	150 00	109 57	259 57	.....	.....	.....
Mortar, Sand and Cement Tests.....	.....	.....	.....	206 91	.....	.....
Photographs of Works.....	21 65	.....	21 65	.....	.....	.....
Improvement of I. and M. Canal, between Bridgeport and Lockport.....	.....	.....	.....	.....	.....	.....
State Street Bridge, Chicago River.....	.....	90	.....	.....	.....	.....
Randolph Street Bridge, Chicago River.....	75 86	56 28	132 13	.....	.....	.....
Harrison Street Bridge, Chicago River.....	4 17	68	4 85	.....	.....	.....
Eighteenth Street Bridge, Chicago River.....	70 85	68 65	139 50	.....	.....	.....
Main Street Bridge, Chicago River.....	70 85	161 42	232 27	.....	.....	.....
Ashtland Avenue Bridge, Chicago River.....	45 00	3 50	48 50	672 00	.....	.....
Rip-Rap Test, Section O.....	463 75	291 83	755 57	.....	.....	.....
Chicago River Special Commission.....	.....	.....	.....	.....	.....	.....
Bridgeport Pumping Works.....	.....	.....	.....	.....	.....	.....
Totals.....	\$5,471 80	\$3,303 18	\$8,774 98	\$56,096 53	\$427 34	\$ 230 90
Total.....	.....	.....	.....	.....	\$427 34	\$230 90
	.....	.....	.....	.....	.....	457 34
	.....	.....	.....	.....	.....	\$ 648 24

## SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—QUANTITIES.

*Amount Done During January, 1901.*

DESIGNATION.	Glacial Drift. Cu. Yds.	Solid Rock Cu. Yds.	Masonry and Concrete. Cu. Yds.
Chicago River.....	16,000		
Section 17.....	8,650	50	
C. T. T. R. R. Co.'s Bridge, Chicago River.....			900
Totals.....	24,650	50	900

## SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—VALUES.

*Amount Earned During January, 1901.*

DESIGNATION.	Main Channel.	Bridges.	General.	Totals.
Chicago River.....	\$3,920 00			\$ 3,920 00
Section O.....	872 00	\$ 199 79		871 79
Section 17.....	5,462 58			5,462 58
Section 18.....	—60 00			—60 00
Controlling Works.....	2,172 55			2,172 55
Van Buren Street Approach Span, Chicago River.....		238 95		238 95
Taylor Street Bridge, Chicago River.....		20,379 80		20,379 80
C. T. T. R. R. Co.'s Bridge, Chicago River.....		8,670 12		8,670 12
Southwest Boulv. bridge, Main Channel, Sec. O.....		745 62		745 62
Eight-track permanent bridge, Main Channel, Sec. O.....		17,713 27		17,713 27
Bear Trap Dam bridge, Main Channel, Section 15.....		—51 15		—51 15
Ill. & Mich. Canal Lock at Bridgeport.....			\$ 206 91	206 91
Totals.....	\$12,167 13	\$47,896 40	\$ 206 91	\$60,270 44

REPORT IN REFERENCE TO PAYMENT OF  
SIMON J. FORHAN'S STATEMENT FOR  
SERVICES RENDERED.

Mr. Legner, Chairman of the Committee on Judiciary, presented a report from the Committee recommending that the President and Clerk be authorized and directed to pay, on the voucher of the Attorney of the Board, to Simon J. Forhan, the sum of \$135.00, being for services rendered in connection with the improvement of the North Branch of the Chicago River.

The following is the report:

CHICAGO, Feb. 27, 1901.

To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago.

GENTLEMEN—The Committee on Judiciary to which was referred at the meeting of the Board of Trustees held February 20, 1901, (page 7003 of the Proceedings) the statement of Simon J. Forhan for services rendered in connection with the

improvement of the North Branch of the Chicago River, amounting to the sum of one hundred and thirty-five (\$135.00) dollars, reports that it has made a careful examination of the items and amounts therein set forth and recommends that the President and Clerk of the District be and they are hereby authorized and directed to pay, on the voucher of the Attorney, to the said Simon J. Forhan the sum of one hundred and thirty-five (\$135.00) dollars.

Respectfully submitted,

WM. LEGNER,

Chairman.

THOMAS J. WEBB,  
WM. H. BAKER,  
Z. R. CARTER,  
FRANK X. CLOIDT,  
FRANK WENTER,  
THOMAS A. SMYTH,  
Committee on Judiciary."

(One enclosure.)

Mr. Legner, seconded by Mr. Cloidt, moved that the report be adopted and the recommendations therein contained concurred in.

The roll being called it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

#### REPORT ON BIDS FOR GRADING THE ROAD BED FOR SPUR TRACK ON EAST END OF SECTION "K."

Mr. Braden, Chairman of the Committee on Engineering, presented a report from the Committee in reference to the bids received for grading road bed for spur track on the east end of Section "K," referred to the Committee at the meeting of the Board held February 20, 1901, (page 7008 of the Proceedings) recommending that the contract be awarded to M. H. McGovern & Co., said firm being the lowest bidder.

The following is the report:

CHICAGO, Feb. 27, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering reports a communication from the Chief Engineer transmitting a tabulation of bids for grading the road-bed for spur track on east end of Section "K."

It appears from the list of bids submitted that M. H. McGovern & Co. is the lowest bidder upon said work. The price stipulated in lump sum is two thousand fifty-eight (\$2,058.00) dollars.

Your Committee recommends that the work of grading said road-bed be awarded to said M. H. McGovern & Co., whom the Committee finds to be the lowest responsible bidder, and that the President and Clerk of the District be authorized and directed to execute said contract on behalf of the District in the form to be prepared according to said advertisement, plan and specifications and as soon as the same shall have been executed by the said M. H. McGovern & Co. for the work awarded to them and a bond shall have been furnished and approved by the Committee on Finance for the faithful performance of the work

specified in the penal sum of six hundred (\$600.00) dollars.

The Committee further recommends that the checks of all other bidders be returned to said bidders respectively when said contract has been executed.

Respectfully submitted,

(Signed)

J. C. BRADEN,

*Chairman.*

FRANK X. CLOIDT,

THOMAS A. SMYTH,

Z. R. CARTER,

THOMAS J. WEBB,

WM. LEGNER.

FRANK WENTER,

*Committee on Engineering.*

(Two enclosures.)

Mr. Braden, seconded by Mr. Baker, moved that the report be adopted and the recommendations contained therein concurred in.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

#### COMMUNICATION FROM THE ATTORNEY OF THE BOARD IN REFERENCE TO SETTLEMENT OF JUDGMENT IN THE CASE OF JOHN A. BIGGOTT VS. THE SANITARY DISTRICT OF CHICAGO.

The Clerk presented a communication from James Todd, Attorney of the Board, recommending that the Attorney of the District be authorized to settle the suit now pending in the Circuit Court of Cook County, in the case of John A. Biggott vs. the Sanitary District of Chicago, for the sum of \$150.00, being for loss of crops caused by rains washing down the clay of the spoil banks over and upon the land of said John A. Biggott.

The following is the communication:

CHICAGO, February 19th, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On February 20th, 1900, a judgment for two hundred (\$200.00) dollars was entered against the Sanitary Dis-

trict in the case of John A. Biggott versus the Sanitary District, tried before Justice Smith at Lyons. An appeal was taken and perfected to the Circuit Court, the case now being on Judge Baker's trial calendar, General Number 205096.

The case was a suit to recover damages for the loss of crops during the years 1895, 1896, 1897, 1898 and 1899. The said Biggott holds the land, upon which the injury complained of occurred, by lease from the Illinois Trust and Savings Bank, trustee for the Norris Estate, said lease expiring September 30th, 1901. An investigation discloses that the right of way of the District is very narrow at this place, and that the foot of the spoil bank is immediately adjacent to the boundary of said Biggott's land. The spoil bank is very high at this place by reason of the excavation being all deposited upon one side of the Canal. The loss of crops being caused by rains washing down the clay of the spoil bank over and upon the land of said Biggott. There is no provision for the drainage of said washings of clay from the spoil bank.

After an investigation of the matter, I recommended that the Attorney of the District be authorized to settle same in the sum of one hundred and fifty (\$150.00) dollars upon dismissal of said suit and proper discharge and release by said Biggott of any and all claims for damages against the Sanitary District arising out of the above suit, or during the term of his present lease or its extensions.

Very respectfully,

JAMES TODD,  
*Attorney.*

Mr. Brauen moved that the communication be referred to the Committee on Judiciary.

The motion prevailed unanimously and it was so ordered.

COMMUNICATION FROM THE MASSILLON BRIDGE COMPANY REQUESTING PERMISSION TO ASSIGN CONTRACT FOR THE ERECTION OF THE SUPERSTRUCTURE OF BRIDGE AT ASHLAND AVENUE, AND ACCEPTANCE OF ASSIGNMENT BY THE CHICAGO BRIDGE AND IRON COMPANY.

The Clerk presented a communication from the Massillon Bridge Company requesting permission to assign its contract

for the erection of the superstructure of bridge across the Chicago River at Ashland Avenue to the Chicago Bridge and Iron Company, said contract having been awarded to the Massillon Bridge Company at the meeting of the Board held January 30, 1901; also a communication from the Chicago Bridge and Iron Company accepting such assignment of contract.

The following are the communications:

CHICAGO, February 26th, 1901.

*To the Honorable, the Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Whereas, it is desirable that an arrangement be entered into between the Massillon Bridge Company, holding contract with your District under date of February 13, 1901, for the construction of a bascule bridge across the west fork of the South Branch of the Chicago River, on the line of Ashland Avenue, and the Chicago Bridge and Iron Company of this city, under which the said last named Company shall construct the superstructure of the said bridge, as is provided in the aforesaid contract. We respectfully ask that we be permitted to assign the contract for the construction of the said bridge to the said Chicago Bridge and Iron Company, who will assume all the obligations and responsibilities of our aforesaid contract. The said Chicago Bridge and Iron Company is, as you know, a corporation doing business in this city, and this assignment will mean the manufacture of the bridge at their works in said city, and the consequent advantage to the city labor of the same.

Respectfully submitted,  
MASSILLION BRIDGE COMPANY,  
Per JNO. C. DARST,  
*Agent.*

CHICAGO, Feb. 26, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—We hereby advise you of our willingness to accept the assignment of the contract which now exists between your Honorable Body and the Massillon Bridge Company for the construction of the bridge on the line of Ashland Avenue, crossing the west fork of the South Branch of the Chicago River. We offer



ourselves as successors in all that that term implies to the said Massillon Bridge Company.

Respectfully submitted,

CHICAGO BRIDGE AND IRON CO.,

By HORACE E. HORTON.

Mr. Braden moved to refer the above communications to the Committee on Engineering.

The motion prevailed unanimously and it was so ordered.

COMMUNICATION FROM THE AMERICAN BRIDGE COMPANY REQUESTING RETURN OF CHECK ON BID FOR THE ERECTION OF HARRISON STREET BRIDGE.

The Clerk presented a communication from the American Bridge Company, by Wallace Marshall, requesting that the check deposited on its bid for the erection of the superstructure of bridge across the Chicago River at Harrison Street, be returned to said company, alleging that the conditions of business have so changed in the past month and a half as would make it undesirable to accept the contract on the basis of conditions at the time the proposal was submitted.

Mr. Braden moved that the communication be referred to the Committee on Engineering.

The motion prevailed unanimously, and it was so ordered.

PROPOSITION TO RELEASE LAND ON CONTRACT SECTION "1."

The Clerk presented a communication from Joseph Bamberg, present lessee of a ten-acre tract of land on Contract Section "1," in Section 5, Township 87 North, Range 12, on the south side of the Main Channel, offering to re-lease said land for the term of one year, dating from April 1, 1901, at an annual rental of \$3.50 per acre.

On motion of Mr. Braden the communication was referred to the Committee on Finance.

PROPOSITION TO RELEASE LAND ON CONTRACT SECTION "5."

The Clerk presented a communication from Timothy Carroll, present lessee of a fifteen-acre tract of land on Contract Section 5, being part of Section 14 T. 87 N.

R. 11, on the south side of the Main Channel, offering to re-lease said land for the term of one year, beginning February 1, 1901, at an annual rental of \$3.50 per acre.

On motion of Mr. Braden the communication was referred to the Committee on Finance.

COMMUNICATION FROM DU PAGE CONSTRUCTION COMPANY.

The Clerk presented a communication from the Du Page Construction Company, by J. L. Breen, President, offering to purchase from the District 7,500 cubic yards of rough, broken stone, to be taken from the spoil banks at Willow Springs, at 12½ cents per cubic yard.

The following is the communication:

CHICAGO, February 27, 1901.

*To the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Du Page Construction Company, for the purpose of ballasting the tracks of the Chicago and Des Plaines Valley Electric Railway Company, in Archer road, desire to purchase from your Honorable Body seventy-five hundred (7500) cubic yards of rough, broken stone, to be taken from your south spoil bank at Willow Springs, just west of the highway, crossing your Drainage Channel at that point.

We propose to crush the stone on your spoil bank. We will need space to set up and operate our crusher at that point, and also right of-way to haul the stone away after it is crushed, on temporary railroad tracks to be laid by us. We propose to commence forthwith. The capacity of our crusher is one hundred and fifty cubic yards per day of ten working hours. We expect to work six days in the week and take the stone away as fast as possible.

We will pay you twelve and one-half cents (12½) per cubic yard for the seventy-five hundred cubic yards, measured on the spoil bank by taking cross sections of same.

We will pay you in installments upon such terms as you may fix in case you accept this proposition.

We would like an answer upon this proposition to-day and if accepted we will

begin setting up our crusher at once and will begin removing the stone as soon as possible.

Very truly yours,

DU PAGE CONSTRUCTION COMPANY.

By J. L. BREEN,

*Superintendent Construction.*

Mr. Smyth, seconded by Mr. Braden, moved that the proposition contained in the above communication be accepted; and that the removal of said stone from the spoil banks at Willow Springs be made under the direction of the Chief Engineer.

The roll being called the motion was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

PROPOSED AGREEMENT BETWEEN THE  
SANITARY DISTRICT OF CHICAGO AND  
THE CITY OF CHICAGO FOR LEASING OF  
WATER POWER SUBMITTED.

Mr. Webb stated that he had received from the Assistant Corporation Counsel of the City of Chicago the proposed agreement, between the Sanitary District and the City of Chicago for the lease of the water-power of the Drainage Canal, and which he now desired to submit to the Board.

The proposed agreement was received and placed in the custody of the Clerk.

PRESIDENT AND CLERK DIRECTED TO  
ADVERTISE FOR BIDS FOR THE EREC-  
TION OF THE SUB AND SUPERSTRUC-  
TURES OF BRIDGE ACROSS THE CHI-  
CAGO RIVER AT RANDOLPH STREET.

Mr. Carter, seconded by Mr. Legner, moved that the President and Clerk of the District be authorized, under the direction of the Committee on Engineering, to advertise for bids for the erection of the sub and superstructures of a bridge across the Chicago River at Randolph Street.

The motion prevailed unanimously and it was so ordered.

Mr. Smyth moved that the Board now go into a Committee of the Whole to take up

the consideration of the message of the President and the recommendations contained therein.

The motion prevailed unanimously and it was so ordered.

The Board thereupon resolved itself into a Committee of the Whole, Mr. Baker in the chair.

ADOPTION OF THE RECOMMENDATIONS  
CONTAINED IN THE MESSAGE OF THE  
PRESIDENT AND AMENDED BILL TO BE  
PRESENTED TO THE GENERAL ASSEM-  
BLY AT SPRINGFIELD.

Upon reconvening, Mr. Baker, as Chairman of the Committee of the Whole, reported that the Committee had had under consideration the recommendations contained in the message of President Jones in reference to the development of the Drainage Canal water-power; also the bill proposed to be presented to the General Assembly for an act to enable sanitary districts to develop and install water power incidentally created by the construction of drainage channels, and to levy taxes therefor; that the Committee had concurred in the recommendations contained in the message and after slight amendment of said bill, recommended that it be adopted in the following form:

A BILL

For an Act to enable sanitary districts to develop and install water-power incidentally created by the construction of drainage channels, and to levy taxes therefor.

*Be it enacted by the people of the State of Illinois represented in General Assembly:*

SECTION 1. That it shall be lawful for any sanitary district organized under and by virtue of "An Act to create Sanitary Districts and to remove obstructions in the Desplaines and Illinois Rivers," to develop any water-power incidentally created by the construction of any main drainage channel or auxiliary channels by said Sanitary District, by the construction of such works and equipment as are necessary to make such power available.

SECTION 2. That said power shall be

made available by the conversion of the same into electrical energy and the transmission thereof to the various cities, villages and towns situated in whole or in part within such sanitary districts, and whose citizens, as tax payers, have contributed to the construction of said channel, or channels, and other municipal expenditures of such sanitary districts.

**SECTION 3.** That this power shall be used in the public lighting of said villages, cities and towns, or parts thereof, situated within such sanitary districts, the operation of pumping plants and for the operation of other machinery used for municipal purposes; provided, that it shall be lawful and it shall be the duty of said sanitary districts to utilize so much of said power as may be necessary to operate pumping stations, the operation of bridges, or any other machinery or appliances which it may be its duty to operate for the municipal purposes of said sanitary districts.

**SECTION 4.** That for the purposes of meeting the expenditures necessary for the development and use of said water-power and installation of the necessary machinery provided for by this Act, it shall be lawful for such sanitary districts to impose in addition to the rate of taxation which such districts are now by law authorized to levy an additional tax of not exceeding one-third of one per cent. per annum of the assessed and equalized value of the taxable property within such sanitary districts, said tax to be used, however, solely for the development and use of such water-power and for no other purpose.

Mr. Baker, seconded by Mr. Braden moved that the report of the Committee of the Whole be adopted.

President Jones called Vice-President Baker to the chair.

A discussion thereupon followed, at the conclusion of which the Chair directed the Clerk to call the roll on the motion to adopt the report of the Committee of the Whole.

The roll being called, the motion was adopted by the following vote:

*Yeas*—Messrs. Baker, Braden, Cloldt, Jones, Legner and Smyth—Six.

*Nays*—Messrs. Carter, Webb and Wenter—Three.

Messrs. Webb and Wenter requested leave to file their personal views on the matter just voted upon.

Objections being raised by Messrs. Braden, Jones and Smyth, the request was refused.

Mr. Webb thereupon moved "that Trustee Webb, or any other member of the Board, be allowed the privilege of filing his objections."

Seconded by Mr. Carter.

Mr. Jones withdrew his objections, and moved, as a substitute for Mr. Webb's motion, that the question of submission of the views of the members of the Board, majority and minority, be deferred to the next meeting, at which time the Trustees who desire, may present such views to the Board in parliamentary form.

Seconded by Mr. Braden.

The roll being called the substitute motion made by Mr. Jones was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones and Legner—Six.

*Nays*—Messrs. Smyth, Webb and Wenter—Three.

By unanimous consent, at the meeting of the Board, held March 6, 1901, the following views of the members of the Board, majority and minority, were ordered printed in the proceedings as of this date:

#### VIEWS OF THE MAJORITY.

CHICAGO, Feb. 27, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

**GENTLEMEN**—The undersigned majority of the Committee of the Whole, in recommending immediate action on the message of the President of the Board of Trustees in relation to the development of the water power of the Sanitary District for the municipal uses of the city of Chicago and other municipalities, located wholly, or in part, within the Sanitary District, beg leave to state that they believe the immediate submission of the proposed bill to the General Assembly is necessary, for the reason that it may be found wise, in deference

to public sentiment resulting from the discussion of this question, to so amend said measure as to provide that before the District shall levy the additional one-third of one per cent tax and proceed to the development of the water power, the whole question of the additional tax and the exercise of this municipal power by the Sanitary District may be submitted to a vote of the people of this municipality. In that event, it would make it highly necessary that the matter should be submitted to the vote of the people at the April election, and this is only possible by an immediate action upon this matter by the General Assembly and the adoption of a provision requiring the submission on that date, which is less than six weeks distant. On the other hand, if the citizens of this community should not show a desire for the addition of the referendum clause and the General Assembly should take no action in that direction, then there remains ample time for the discussion of the entire proposition in the General Assembly and the amendment of the bill, if necessary, before the General Assembly adjourns.

The sincerity of the gentlemen who maintain that additional time should be given to the consideration of the water power question in order that careful "estimates of expenses" may be collated is not questioned by the majority, but a review of the consideration which has already been given to the Sanitary District water power and the expense of developing same will best show whether this statement is correct, and whether the recommendation today made is without an adequate consideration of all the conditions involved and expense necessary in the development of the Drainage Canal power.

As early as December, 1895, President Eckhart, in his inaugural message referred to the vast water power possibilities of the Sanitary District and pointed to the necessity of considering the development of the same as soon as

the Board should be in a financial position to undertake the work.

From that time forward the matter was informally discussed at various times in the Engineering Committee of the Board of Trustees, and the Board having become in a financial condition to undertake the work in 1897, an investigation was begun as to the exact cost of developing this power and the possible revenues that might be derived by its utilization for the various purposes to which it might be adapted. As the result of this discussion Chief Engineer Randolph visited the water power plant at Niagara Falls and obtained full and complete data of the expense of development and submitted the same to the Committee on Engineering of the Board of Trustees on June 1, 1897, in the following communication:

"CHICAGO, June 1, 1897.

*To the Committee on Engineering:*

GENTLEMEN—Since I entered the service of this District four years ago I have felt that with you only rested the policy to be pursued in any matter affecting the great trust which is yours, but I have also felt, and now feel, that you are entitled to know every fact of which your employes have knowledge which can in any way contribute to the formation of that policy upon lines which are wise and for the best interest of your work. In this belief I now discharge a duty which I owe to you and to this District in laying before you facts which have come into my possession bearing upon the question of water power development.

I have just returned from Niagara, where I went hoping to learn from men in responsible charge of that work to what extent my ideas—based upon reading, observation and conversation with men whose knowledge of the problems involved in water power development is greater than my own—are correct. It was my good fortune to be introduced in a way which made my reception cordial and kindly to Mr. Stillwell, the electrical expert who has worked out for the Niagara Falls River Company their intricate problems and who is consulting engineer for other projects of scarcely less importance than that work. What I learned from him condenses into the following statement:

For any given water power the development of energy in the dynamo will be 80

per cent of the turbine development. The loss from the dynamo to the line is 4 per cent of the initial power. For a transmission of 37 to 40 miles the loss is 40 per cent of the initial power, or 25 per cent of the electrical power. For example,

1,000 H. P. at the wheel gives  
800 H. P. at the dynamo,  
760 H. P. delivered from the dynamo,  
600 H. P. delivered 35 to 40 miles off.

The cost of distributing line 35 to 40 miles in length exclusive of right of way runs about \$25 per H. P.

For a 20,000 H. P. plant the cost of turbines, dynamos and power house complete would be about \$25 per H. P., or \$500,000.

He says further that while it is true that there is a loss of 40 per cent in power from generating plant to consumer, experience shows that it is safe to contract to furnish 25 per cent more power than the net indicated H. P. at point of delivery. This, because of the intermittent use of power by many concerns, for instance, power used by factories during the day can be, and is, switched off to electric lighting at night. He figures \$25 per H. P. per annum as a conservative rate of rental and \$20 is a very low rental. He says that electrical transmission has now passed the experimental stages and is upon a basis of commercial certainty. What I learned from him confirms and broadens all of the ideas I had previous to our meeting.

Applying what I have learned to our own conditions we have the following exhibits:

First: The largest and most expensive development possible in the vicinity of Lockport, 32,500 H. P. at a cost (without machinery plant) of \$2,632,491.00; see report on alternative projects for this location:

Cost of installation at \$25.00 per H. P. ....	\$ 812,500
Cost of line for 26,000 H. P. (50 per cent of gross H. P.) at \$25.00 per H. P. ....	650,000
Head and tail races as above ....	2,632,491
	<b>\$4,094,991</b>

The interest on this total (\$4,094,991) at 5 per cent would be \$204,750.

The earnings of this plant based upon 19,500 net H. P. delivery with 25 per cent added, 4,875 H. P., which, for the present case, we will figure at 24,000 H. P., would, on the basis of \$25.00 per H. P., be \$600,000 per annum, or the interest on \$12,000,000 at 5 per cent. The interest on the cost of the plant at 5 per cent would be \$204,750, leaving a surplus of \$395,250, from which the cost of maintenance and administration, estimated at \$168,000, must be taken, leav-

ing a net balance of \$227,250 for sinking fund. Surplus at this rate would equal the investment in about 18 years, but by applying surplus to repayment of investment each year would reduce the interest account correspondingly. This much for the Lockport situation.

(Paragraphs relating to development at Joliet omitted, as the conditions were radically changed later and only that portion of the letter is quoted which relates to the condition at Lockport.)

I have no doubt whatever that private capitalists will gladly make the entire investment at both Lockport and Joliet upon terms which would be most advantageous to the District, thus providing a course of future revenue and leaving the funds now at your disposal free for investment in a fuller development of these plans, which must be carried to fulfillment before the ultimate benefits of the great work will accrue to the people whose money is being used so liberally in its prosecution.

Respectfully submitted,

ISHAM RANDOLPH,  
*Chief Engineer."*

The above communication was considered on June 1st and again on June 9, 1897, and it was decided as the wisdom of the Board that said water power should be developed, and the following order, introduced by Trustee Braden, was unanimously adopted:

"WHEREAS, The location of the tail race for the disposal of the waters of the Main Channel beyond the Controlling Works has been decided upon, and the lands necessary for occupation by the same have been acquired by this District; therefore, be it

*Ordered*, That the Chief Engineer prepare at once specifications for the execution of the work to be done in erecting said tail race in accordance with the plans therefor heretofore submitted by him for the consideration of the members of this Board sitting as the Engineering Committee, and that he be instructed to increase the scope of these plans so as to develop the fullest amount of water power which can be made available as an incident of the said work, creating a head of at least fourteen (14) feet at the Weir Dam; and further be it

*Ordered*, That the Clerk of this Board be directed to advertise the work of said tail race and work collateral thereto when he shall have been furnished the data necessary for said advertisement by said Chief Engineer."

On August 25, 1897, bids were received

for the construction of the work necessary to develop the water power on the above plans, but on September 1, 1897, the Committee on Engineering made a report which was unanimously adopted by the Board, rejecting all bids and directing that plans be prepared for the re-advertisement of the work. On November 10 of the same year, however, a change of route was adopted in the interest of a greater development of water power and the plans which had been previously approved were abandoned. This change of route was the result of the following communication from the Chief Engineer, which was received on November 5, 1897, and which had been fully considered in the Engineering Committee:

"CHICAGO, Nov. 5th, 1897.

*To the Committee on Engineering:*

GENTLEMEN—The condition in which this District finds itself with reference to prospective revenues that may be applied to the completion of its principal works in view of the recent low assessments of property within the District, renders it advisable to consider anew the nature of the works it may construct opposite Lockport, generally known as the Tall Race.

In projecting a Tall Race several routes were available, the utility of each being dependent upon the particular nature of the work to be done. Notably was the so-called West Route and also the so-called Central Route. The former offered substantial advantages for the development of a water power in conjunction with the incident of allowing a passage for the water down the hill. The latter was so disposed as to be of no avail except for the passage of water.

A proper conservation of the resources and properties of the District, as suggested in the law, led to the conclusion that water power should be developed if it could be profitably done with means at hand, which appeared to be the case. The Engineering Department was accordingly instructed to develop plans with that end in view on what has been called the West Route. Specifications were prepared and bids invited which proved that the work as outlined would cost \$622,000. These bids were rejected for proper reasons and new bids are to be opened on the 10th inst.

It appears, as a result of prices obtained

at the time of receiving Tall Race bids and from other recent developments, that if the Central Route for Tall Race be now adopted a total cost of about \$265,000 will be involved, with the result that the water will be disposed of but the water power will not be developed.

The saving in present cost will be about \$350,000, and the merits of effecting this saving at this time may be briefly stated.

The adoption of the Central Route will in no wise operate against a full and complete development of water power at any time in the future that circumstances may dictate, because the location is different from that upon which any water power location would at any time be made, whether the development be made either in West or East locations. In fact, it is true that the situation for future development of water power will be left so flexible that a more complete and satisfactory development will be possible than that which has been possible. Respectfully submitted,

ISHAM RANDOLPH,

*Chief Engineer."*

In the meantime, however, and somewhat previous to the above action, the following suggestions from the Chief Engineer as to the manner in which said water power should be developed, had been presented to the Engineering Committee and formally approved by that body:

"SUGGESTIONS FOR EMBODIMENT IN ANY CONTRACT FOR CONTROL OF WATER POWER.

The work, so far as it affects the objects and scope of the Sanitary District for drainage or navigation, should be carried out under its direction and in accordance with its plans and all plans of whatever nature for the development of the power should be subject to approval by the District. The Sanitary District should furnish and own all of the lands needed for the development of the project. The investors supplying the money for the work should be given a lease of the water rights and be empowered to occupy so much of the right of way of the Sanitary District as shall be needed for carrying their wires or other electrical conductors from the site of the water power to the City of Chicago or any points between the two termini of the channel. The investors should have the lease of water free of rental to the District until the revenue derived from the sale of power should amount to 5 per cent interest on a sum which should equal the actual investment

by them in the construction of the work done by them under this agreement, plus the interest accruing thereon during the period of construction and up to the time when the District delivered to the said investors a flow of water equal to 300,000 cubic feet per minute. As soon, however, as the revenues derived from rentals shall exceed the sum of the following fixed charges, (a) interest on investment as herebefore limited, (b) taxes, (c) operating expenses, administration and depreciation of plant, then the surplus earnings shall be divided equally between the Sanitary District and the Investors, and the District may, at its option, apply its dividends to the purchase of the rights of the Investors.

The interest to be provided out of earnings shall be on actual investment in the construction and equipment incident to the creation of the power plant and all expenditures for these purposes must be audited by an officer of the District and certified to by him.

The amounts paid for operating expenses and administration must be such as would be reasonable and proper under good business management and all such expenditures shall be subject to the scrutiny and approval of the Board of Trustees of this District. The provisions herein suggested for the development of power for a flow of 300,000 cubic feet of water per minute shall apply to the successive development of power with each increase of water supply."

During this period there was a temporary suspension of the discussion of the water power development owing to the fact that the Sanitary District was in litigation with the Illinois and Michigan Canal Commissioners, and the further fact that all the energies of the Trustees were being directed to push the work remaining to be done in order to open the channel for drainage purposes. Toward the end of the year 1897, however, the matter was again taken up in Committee and considered at various sessions of that body. Finally, on February 8, 1899, the Chief Engineer submitted to the Engineering Committee for its approval the following communication relating to the details of the proposed development of water power and was directed by the Committee to mail the same to the various investors and pro-

moters throughout the country who might be interested in the proposition:

"CHICAGO, Feb. 8, 1899.

DEAR SIR—The Sanitary District of Chicago desires to call your attention to the fact that, among other important results growing out of the work which it has been prosecuting and which is now rapidly nearing completion, a situation will exist at or near Lockport, Will County, Ill., which can be made to afford a water power development of very considerable magnitude. The volume of water delivered at this site will be 300,000 cubic feet per minute, which, to comply with the law under which this District is created must be increased to 600,000 cubic feet per minute. Under proper construction a fall of 34.5 feet can be secured with a flow of 300,000 cubic feet per minute. This head would diminish with the maximum flow, for reasons which will be explained to those investigating this subject, to about 25.5 feet. This site is about 30 miles from Chicago, and the Sanitary District owns a continuous and ample right of way extending from the proper location of the power plant to Robey Street in the City of Chicago (six miles via the Chicago River from Lake Michigan). The Engineering Department of this District has prepared, by way of suggestion, general plans for this project and presents estimates as follows of the quantities of work involved in the preparation of head and tail race and wheel pits:

Cubic yards.

Rock excavation for head race....	142,081
Masonry in walls for head race....	168,447
Masonry in dam for head race....	37,867
Back filling for walls .....	668,500
Roll excavation for tail race .....	2,242,800

In addition to the development just described this District owns the right to develop water power at or near the mouth of Hickory Creek, adjacent to the southerly limits of the City of Joliet. At this place sixteen (16) feet of fall can be secured by building a proper dam and this can be increased to twenty (20) feet by excavating a tail race to Lake Joliet, four thousand (4,000) feet distant. The volume of water available for this second development will be practically the same as that afforded at Lockport. It is the desire of this District to lease the power privileges at both of these sites to responsible parties upon the best terms to be secured therefor and it invites your consideration of both projects with a view to a contract under which you will fully develop the power which it is possible to create.

The District own ample lands for the establishment of factories near the power de-

velopment but if it is deemed more profitable to transfer the power by electrical transmission to Chicago, a right of way as far as Robey Street will be provided for that purpose. It must be remembered that the volume of flow for this development will be drawn from Lake Michigan subject to absolute regulation and from all of the fluctuations to which other powers are subjected by drought or flood. While it is expected that persons seeking to make and control these developments will offer proposals on lines which seem to them most advantageous, it is proper that a plan should be outlined for your consideration and the following is submitted:

The Sanitary District to lease the water rights, the lands necessary for power plant and right of way for electrical transmission upon the basis of \_\_\_\_\_ dollars per horse power capable of being developed by the value of water supplied at the head made available. The lessee to furnish the money necessary for the creation of the head and tail race turbines, motors and other equipment.

The cost of the head and tail race and wheel pits being a permanent improvement to be paid out of the agreed rentals. The Sanitary District to receipt to the lessee each year for the rental and the lessee to credit the amount of the same upon the entire cost of the head and tail race and wheel pits until the full amount shall have been paid; after which time the rentals shall be paid in money to the Treasurer of the District. All construction must be in accordance with plans approved by the Sanitary District and the work must be done under the supervision and with the approval of the Chief Engineer of the District, who must certify to all expenditures made for the work, to the end that the Sanitary District may be fully advised of the actual cost thereof. Any plan for creating these powers must be developed in harmony with the use of this channel for navigation, and no lease will be granted which does not reserve the right to use sufficient water for lockage. While it seems hardly possible that any development for power purposes could infringe upon or militate against the usefulness of the channel as a great sanitary agent, yet such a possibility must be recognized and fully guarded against.

If your interest is enlisted in the development hereinbefore set forth to the extent which leads you to wish to make proposals for the work please advise me at once, stating your wish to make proposals for this lease and saying how soon you will be prepared to submit the same. We will afford the fullest information with re-

gard to this work that our data admits of. Prompt action is very important.

Yours truly,

ISHAM RANDOLPH,  
Chief Engineer."

This letter was sent to the following named parties:

W. W. Tracy & Co.  
John W. Gates.  
Springfield Iron Co.  
C. T. Hutchinson.  
Illinois Steel Co.  
Western Stone Co.  
J. L. Norton.  
W. W. K. Nixon, 85 Dearborn street.  
E. E. R. Tratman.  
A. A. McClanahan.  
H. Von Schon.  
W. W. Randolph.  
Stillwell-Bierce & Smith-Vail Co.  
Geo. C. Knapp.  
James Walsh.  
Wm. M. Van Northwick, 25 Borden block.  
Cramp-Hoadley Co.  
George F. Morgan.  
F. H. Clergue.  
W. L. Stebbings.  
Col. John Lambert.  
C. Buckingham.

#### THE PLANS FOR DEVELOPMENT.

As a result of the above communication several inquiries were made by a number of the parties to whom communications had been addressed and he plans of the Engineer for the development of the power reduced to details amounting to a practical certainty as to the cost of development. This is evidenced by the following communications addressed to Chairman Jones of the Sub-Committee on Water Power Development, May 10, 1899:

"CHICAGO, May 10, 1899.

Hon. Alex. J. Jones, Chairman sub-Committee on Power Development:

DEAR SIR—I submit herewith a plat showing the suggested location for water power dam near the south line of Section 16, Joliet. With the best information which I have at hand I make the following estimate



as to the cost of this work. As indicated upon the map the power building is located at the west end of the dam. My suggestion is, that a permanent dam of concrete masonry be built from the easterly side of the channel up to the proposed location of the power plant. This makes a structure about 600 feet long, the masonry of which would amount to about 6,600 cubic yards, which, at \$8.00 per cubic yard, would cost \$52,800. I would connect this dam with the tow-path of the canal by a timber structure about 400 feet long, costing about \$15 per foot, or \$6,000.

It will be necessary to control the water level in flood times above this dam, and for that purpose I would put in two lifting gates in the permanent dam, costing about \$30,000. The total cost of this work would, therefore, be \$88,800.

The power plant can be built below the wooden dam whenever it is determined to erect it. This done, the wooden structure would be removed, giving the water access to the wheels in the power plant.

For a flow of 300,000 cubic feet of water per minute we should get 568 gross H. P. for each foot of head. The minimum head to be secured at this site would be 14 feet, with a resulting H. P. of 7,952 gross. The cost of the hydraulic development would be from \$20 to \$25 per gross H. P. Taking it at \$20 for 7,962 H. P. would give the resulting cost of \$159,040.

The power to be derived from a maximum flow of 600,000 cubic feet per minute would very nearly double the H. P. stated above. It is possible by excavating a tail race from the site of the power indicated upon the plat to Lake Joliet to secure about 20 feet head, which means an increased power from the flow of 300,000 cubic feet of 5,408 gross H. P., or a total of 11,360 gross H. P. By excavating this tail race, the yardage from which would be about 528,000, and depositing the excavated material on the left side of the channel, there need be no more overflow of the lands on the flat below Joliet, where the tin plating plant is located, than there has been prior to the construction of this channel. I am unable to say what the District would save in damages by making this improvement, as I am not sufficiently acquainted with the value of the plant to form a reasonable conjecture. The material excavated from this tail race would probably cost 70c a cubic yard or a total of \$369,600, the compensation for which would be the increased H. P. of 3,408 and a saving in damages on property to be overflowed. I am advised that it requires 0.8 of an electrical H. P. to run an arc light for street illumination.

As a synopsis of the foregoing situation we have:

Concrete dam .....	\$ 52,800
Timber dam .....	6,000
Two lifting gates .....	30,000

Total for dams and controlling gates .....	\$ 88,800
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Hydraulic development for 7,952

H. P. at \$20 per H. P. ....	159,040
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Total for power development under 14 foot head .....	\$247,840
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To increase this development to 11,364 H. P., add for excavation of tail race .....	369,600
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Or a total of .....	\$607,440
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Respectfully submitted,

ISHAM RANDOLPH,  
Chief Engineer."

"CHICAGO, May 3, 1899.

DEAR SIR—The general facts in regard to the water power development at Lockport are embraced in the circular letter which I prepared on Feb. 15, 1899. Upon going over the old plans for that work I have made some changes which require a revision of the quantities as shown in that report. This revision is as follows ..

Cubic yards.

Rock excavation for head race....	388,000
Masonry for head race walls ....	168,447
Masonry for dam .....	37,867
Back filling for walls .....	418,500
Rock excavation for tail race ....	2,242,800

I think that under the present conditions we should figure rock excavation at 70c; concrete masonry of native cement, faced with Portland, \$3.50 per cubic yard. Back filling, 25c per cubic yard.

The conditions at the mouth of Hickory Creek, Joliet, are approximately these: To secure a 14 foot head a dam about 1,000 feet long will have to be built. The cost of this dam I estimate to be about \$88,000. By cutting a tail race to Lake Joliet, a distance of about 4,400 feet, the head can be increased to about 20 feet.

The excavation for this tail race is, approximately, 528,000 cubic yards, the cost of which would be about 70c per yard.

The volume of water available at this site will be a minimum of 300,000 cubic feet per minute, increasing to a maximum of 600,000 cubic feet.

The right of way owned by the District does not extend entirely through the City of Joliet; there is a gap of about 4,000 feet between the right of way owned south

of Jackson Street and that north of Ruby Street.

The excavation for all of this work will be in solid rock or else in very heavy clay and boulders.

The equipment of wheels and electrical appliances, with transmission line to Robey Street, Chicago, will probably cost \$50 per net H. P. The market for this power in Chicago will probably be amongst the smaller consumers, as the electric railroad people, both surface and elevated, have steam plants on such a large scale that they generate electricity very economically. My own belief is that the minimum revenue can be figured on a basis of \$25 per H. P. rental per annum. Any one contemplating so large an outlay as this will be should canvas the situation in Chicago quietly to determine what the probable demand for power will be.

My impression is further, that with a navigable channel, such as ours will be to Lockport, that factories will locate there, making a large demand for the power, and probably taking it at figures which would prove more beneficial to the owners than transmission to the City would prove.

Yours truly,

ISHAM RANDOLPH,

*Chief Engineer."*

#### THE WATER POWER ADVERTISED.

After the Board's plans had become thoroughly known, Mr. F. H. Clergue, Mr. Clarence Buckingham and various others began to make serious estimates with a view of bidding for the development of the power and on June 16, 1899, Mr. Thomas T. Johnston, Assistant Chief Engineer of the Sanitary District, presented a plan for the development of a portion of said water power at an expense of \$600,000, but as this did not involve a maximum development of said power as contemplated by the Chief Engineer's plans, it was rejected and finally on June 21, 1899, the Board by unanimous action decided to advertise said water power on the Chief Engineer's plans and in such manner that not only private corporations, but also the City of Chicago and other public corporations and municipalities, might be enabled to bid for the same.

There was grave doubt at that time

as to the legal right of the city to develop this water power, as is shown in the following proceedings, containing certain statements made on that occasion together with the Committee report unanimously adopted, and the order directing the advertisement of said power.

*"To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on engineering respectfully reports that it had under consideration, from time to time during the past year, the question of development and utilization of the water power incidentally created at various points along the Main Drainage Channel and receptive of immediate development.

Your Committee find that under the present law, even if the Sanitary District adequate funds at its command, it has the legal right to construct the power-house and other electric plant, additional to dams and tail races, which would be necessary to the utilization of this power leasing it to the consumers along the Channel and within the radius that the same might be economically utilized as a means of power.

It seems wise, therefore, in order that the District may realize the great annual revenue susceptible of being derived from power, proposals should be invited for development of the same, either by private parties, quasi-public or public corporations or municipalities that might desire to consider the benefits of the same. To the end that the highest possible competition may be obtained in the proposed leasing and development of the water power thus incidentally created, your Committee suggests that public advertisement be made for a period of sixty days inviting proposals for the leasing and development of this power, and respectfully recommend the adoption of the order herewith submitted.

Respectfully submitted,

THOMAS A. SMYTH,  
*Chairman.*

Z. R. CARTER,  
THOMAS KELLY,  
J. C. BRADEN,  
FRANK WENTER,  
WM. BOLDENWECK,  
ALEX. J. JONES,

*Committee on Engineering."*

The following is the order:

*"Ordered, That the President and Clerk be authorized, under the direction of the*

Committee on Engineering, immediately to advertise for bids for the development and leasing of the water power incident to and susceptible of development along the Main Drainage Channel and its auxiliary channels or outlets, and subject to be controlled and disposed of by the Sanitary District of Chicago."

In explanation of his vote in favor of the adoption of the report Mr. Jones made the following statement which, at his request and by unanimous consent, was ordered to be recorded in the proceedings:

"Mr. President, I vote for this report for the express reason that it recommends a form of advertising which specifically invites bids from 'public corporations or municipalities' that may desire to consider the benefits of this water power, as well as inviting bids from private parties and quasi-public corporations. Personally, I am of the opinion that under the present laws and constitutional limitations it is absolutely impossible for the City of Chicago to make a legal bid for the development of this water power, but since some of our daily papers, after an immature and hasty consideration of the question, have advocated the submission of a proposal by the City of Chicago, I am anxious that the amplest opportunity should be afforded for the determination of the city's legal and financial condition to make a bid for the development and lease of the water power."

In accordance with the above action of the Board, this water power was advertised for a period of sixty days, but neither the City of Chicago nor any other municipality saw fit to make any bid thereunder, and the following proposals were the only bids received under this advertisement:

"CHICAGO, Aug. 23, 1899.

*To the President and the Board of Trustees of the Sanitary District of Chicago:*

DEAR SIR—I enclose herewith certified check issued by the Illinois Trust and Savings Bank, No. 133,515, to the order of the Clerk of the Sanitary District, for \$50,000, in accordance with your advertisement under date of June 28, 1899, which stated that all bids must be accompanied by checks or cash for \$50,000. I desire to reaffirm my bid for the water power referred to in said advertisement, which bid was filed with your Board in the month of June, and I desire to change the said bid in the following particulars

Article 2 of the said bid provides for

forming a corporation within twenty (20) days after the acceptance of said proposition by the said Sanitary District, and I desire to change the same so that it shall read "to form a corporation within sixty (60) days after the acceptance of the said proposition by the Sanitary District. A" attached to my said bid, on page —

In the lease, which is marked "Exhibit there is a typographical error in the second paragraph, the 9th line from the bottom of the page. The said lease reads, "and that the first one million and one-half dollars expended, etc., should read, and I desire to change the same to read as follows: "That the first one and one-half million dollars expended, etc."

In all other particulars I desire to reaffirm and refile my said bid. I hand also explanation and two sketches.

Yours very respectfully,

(Signed) CLARENCE BUCKINGHAM.

Received of Joseph F. Haas, Clerk, certified check No. 133,515, in the sum of fifty thousand dollars, deposited with above bid August 23, 1899, this day returned.

(Signed) CLARENCE BUCKINGHAM.

November 10, 1899.

Witness: P. SCHOFIELD."

"JOLIET, ILL., Aug. 23, 1899.

*To the President and Board of Trustees of the Sanitary District of Chicago, Chicago, Ill.:*

GENTLEMEN—In accordance with your advertisement of June 23, we submit herewith a bid for the water power at Lockport and Joliet. We also enclose herein our certified check for the sum of \$50,000, said check to be returned to us after the bid for water power shall have been awarded as per terms stated in your advertisement. Would state that in case our bid is accepted we are prepared to furnish bond to the amount of \$300,000.00 or such amount as may be considered reasonable to insure that we will carry out our contract in good faith. Yours truly,

THE ECONOMY LIGHT AND POWER COMPANY,

J. L. NORTON,  
President."

"JOLIET, ILL., Aug. 22, 1899.

The undersigned propose to lease from the Sanitary District of Chicago the water power which may be developed in the vicinities of Lockport and Hickory Creek, in

Will County, Ill., in an undeveloped state, payment therefor to be made upon the terms hereinafter stated, the period of the lease to be either 75 or 99 years, at the option of the Sanitary District. It is proposed to pay to the Sanitary District (four) \$4.00 per year, payable quarterly, for each actual horse power that it is practicable to develop at these localities. It is further proposed to construct the necessary embankments, dams, head races, tail races and water wheel foundations, all of which constructions shall at the termination of the lease become the absolute property of the Sanitary District of Chicago. It is further proposed to construct and install water wheels, electric machinery, buildings and other things necessary for the utilization of the power that will be created, but the ownership of these shall always be with the undersigned and shall be moved by it from the property of the Sanitary District at the termination of the lease. It is further proposed in the case of the Lockport power, to take possession of the water at the regulating works of the Sanitary District near Lockport and to confine it toward the western part of the valley by embankments and dams, a spillway being provided near the site of the wire mill road, and power house being erected near the E., J. & E. R. R. It is further proposed to erect pole lines and string wires thereon for the transmission of electric power from the site of the power house to such places as power may be used ultimately.

It is further proposed in the case of the development near Hickory Creek, to take possession of the water immediately above the site of a dam to be constructed across the Desplaines River near the mouth of Hickory Creek and to raise said water to an elevation to be limited by the requirements of the Sanitary District, so as not to overflow the river banks at either side, nor interfere with the bridge across the Desplaines River, nor back water on the dam located at Jackson street in Joliet, over and above such back water as will normally be found in the stream without any dam, near the mouth of the Hickory Creek. It is proposed to construct a dam across the river near the mouth of Hickory Creek and at or near its western extremity to construct a power house. It is also proposed to construct certain tail races below the site of the dam.

All constructions, which are to ultimately become the property of the Sanitary District of Chicago, shall be of nature that will meet the approval of the Chief Engineer of the Sanitary District of Chicago.

None of the constructions shall be of nature that will interfere with any improve-

ments or alterations of the drainage canal or river that may be made for purposes of navigation. It is proposed, however, that the Sanitary District of Chicago is to provide the real estate site necessary for the construction herein provided for, and for the back water that will be created thereby, and shall also give the undersigned the right of way for its pole lines over the property of the Sanitary District. The Sanitary District of Chicago shall also guarantee to the undersigned the use of all its property west of the Desplaines River between the Wire Mills road and the E., J. & E. R. R.

It is further proposed that if the City of Chicago should desire to utilize the power that will be thus created, for the purpose of lighting the City of Chicago, the undersigned agrees to furnish such power to the City of Chicago delivered on the lines of the drainage canal at Robey Street for the sum of \$25.00 per annum per horse power, provided that the City of Chicago enters into such an agreement within six months after execution of the contract that may be made in accordance with this proposal.

ECONOMY LIGHT AND POWER CO.,

By J. L. NORTON,  
President."

#### ALL BIDS WITHDRAWN.

On August 23, 1899, the date of receiving the above bids and before the opening of the same, the Board of Trustees adopted an order declaring that no bids should be considered which did not give the Sanitary District power to annul said contract at the expiration of any ten years to the extent of demanding and appropriating so much of said power as might be necessary for the municipal lighting of the City of Chicago. This amendment was objectionable to both bidders and on November 6, 1899, the Economy Light and Power Company demanded the withdrawal of its check, and two days later Clarence Buckingham recalled his bid for the development of said power upon the ground that the conditions imposed were too onerous to be accepted by the bidders.

Shortly after the rejection of the above bids Alderman Butler introduced and secured the adoption of an order in

the City Council of the City of Chicago opening negotiations between the city and the Sanitary District for the rental of this power for the municipal purposes of the City of Chicago. Many weeks of time was given to the consideration of this question and President Boldenweck, in his annual message to the Board on December 5, 1899, refers to the subject in the following language:

"The matter of water power was taken up by the Board of Trustees during the year and has not only consumed much of your valuable time, but has occupied a great deal of the time of the City of Chicago and the Civic Federation; and, we, as Trustees, finally yielded owing to the wrong impression created by the investigation of the Civic Federation and the City of Chicago as to the value of the water power and proceeded to advertise for bids during sixty days. At the end of that time only one additional bid had been received and the City of Chicago was not heard from. I am of the firm belief, however, that the Board erred in putting restrictions of such a nature on the leasing of the water power so as to make it impossible for any corporation to accept the conditions. The first bid received would have brought a revenue to the Sanitary District of at least \$100,000.00 per year. Since the withdrawal and the return of the checks to the only two bidders, a meeting has been held which was attended by the Trustees and members of a committee of the City Council who were appointed by the Mayor of the City of Chicago, but nothing has been accomplished so far. I feel confident, however, that definite results may soon follow, as the board was informed that the City could raise the money to construct and equip a plant to utilize all the water furnished by the District. The Trustees wisely informed the City authorities from the outset that the City is expected to compensate the Sanitary District for the privilege. The Sanitary District and the City of Chicago not being co-extensive, we could be enjoined by parties outside of the City who have contributed their share toward the cost of constructing the Canal.

"This is merely one of numerous complications which have occurred during the construction of the Channel, growing out of the fact that the City of Chicago and the Sanitary District are different corporations, and not one and the same, as many people be-

lieve. The Sanitary District includes about forty-three square miles of territory, and a population of more than 30,000 inhabitants who are not within the corporate limits of the City of Chicago. On the other hand, the entire population of the city living south of Eighty-seventh street, and all the territory lying south of that street, known as the Calumet district, and having an area of forty-five square miles, are not embraced in the boundaries of the Sanitary District. There are also two small districts on the North Side, the Rogers Park district, containing four square miles, and the Norwood Park district, containing two and one-half square miles, which belong to the city but are outside the limits of the Sanitary District. Yet the city authorities have assumed certain powers within, and have secured concessions from, the Sanitary District. The present situation is anomalous, to say the least, and I now renew the recommendation contained in my annual message of December 15, 1897, in which I urged that steps be taken looking to the annexation to the Sanitary District of all portions of the City of Chicago not included at present within its boundaries."

#### LEASED TO THE CITY.

Finally, on October 3, 1900, a lease was approved between the city of Chicago and the Sanitary District and presented to this body by Trustee Smyth and ratified by the affirmative votes of Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smith and Wenter.

At the urgent request of the various trustees the test case which had been previously prepared to determine the city's right to develop this power was pressed in the supreme court and an early decision requested in order that the matter might be adjudicated in time to ask for additional legislation of the General Assembly for the Sanitary District or the city in case the supreme court should decide against the city's right to increase its bonded indebtedness and to develop this power.

In his outgoing message on December 3, 1900, President Boldenweck alludes to the Board's anxiety on this subject in the following language:

"Much time has been devoted in the year

to perfecting ordinances and contracts between the District and the City of Chicago for leasing to the latter the water power at the Lockport end of the Canal. Had this power been rented to a private company, as was at first contemplated, the District's treasury would have been richer by several hundred thousand dollars, but the water power was reserved for the city. An ordinance for its development and use by the city was passed by the Council July 16, and by the Board of Trustees October 8. The contracts have been executed and now await the test of the bond issue, by means of which the city proposes to defray the cost of developing the power. If the Supreme Court of Illinois decides that this issue can not be legally made, there will be a great loss to the District, since it will then be necessary to let the power run to waste until the Legislature authorizes the bonds or arrangements can be made again for a lease to private parties."

#### THE SUPREME COURT DECIDES ADVERSELY.

The fears of President Boldenweck have been realized and the supreme court has decided adversely to the city, and the contract between the city and the Sanitary District for the development of this power by the former municipality is, therefore, null and void.

After five years' agitation of this matter the board is no nearer the consummation of its hopes and the people no nearer to a realization of public benefits from this power than at the beginning. An electric energy worth, at the lowest estimate \$100,000 per annum or \$300 per day, and at the highest estimate \$250,000 or \$750 per day, is going to waste at Lockport and Joliet. Surely the Trustees of the Sanitary District can not pretend that they have exercised their full duties and responsibilities to the public unless an early and vigorous effort be made for the development of this power. The General Assembly has now been in session in Springfield for nearly two months and it is high time that any measure seriously intended to be passed by the General Assembly at this session should be introduced and seriously prosecuted, and for this reason the undersigned believe that the bill today submitted should be

immediately introduced in the legislature at Springfield and a concerted, loyal effort on the part of the Trustees, as well as on the part of the officials of the City of Chicago, made to secure its enactment in the law.

#### VIEWS OF THE CIVIC FEDERATION.

The advisability from an economic standpoint, as well as from a legal standpoint, of this power being developed by the Sanitary District of Chicago instead of by the City of Chicago was fully considered two years ago by the Civic Federation in its public discussion of the proposition pending at that time to dispose of the power to the highest responsible bidder. The final report of the Civic Federation which influenced this Board to a delay of all action until the matter should be more fully considered by the public, contains the following statement as to the advisability of the power being developed by the Sanitary District instead of by the City of Chicago:

"The simplest and most direct method of utilizing the water power would be for the Drainage Board itself to construct the dams and races necessary for its development. Section 7 of the Act under which the District was organized, in defining the powers of the Board of Trustees, provides in terms that they shall have power 'to control and dispose of any water power which may be incidentally created in the construction and use of said channel or outlets.' Independently of this enactment there can be no doubt that the Drainage Board would have authority to dispose of any water power incidentally created in the construction of its work. The law never requires a private or municipal corporation to let valuable assets run to waste. The Drainage Board could not, for financial profit, engage in an enterprise looking to the creation of a water power independent of its other work, but since in this case the creation of water power is strictly incidental to the construction of the drainage channel the Board of Trustees is not only permitted but in duty bound to realize the largest possible revenue therefrom. The only question open to discussion is whether the Board is restricted to the

lease or sale of the water power in an undeveloped condition, or whether it may for the purpose of rendering the water power more marketable construct the developing works itself and tax the inhabitants of the District for that purpose. This is one of those questions of strict or liberal construction of charter powers in the determination of which the courts exercise much discretion and are largely influenced by considerations of public policy. While some difficult opinions have been expressed, it is believed that the consensus of unbiased legal judgment is to the effect that the Board of Trustees itself is invested with authority to construct all works that are required to enable it to dispose of the water power to the best advantage. Even if such authority were now lacking the legislature could, and upon proper representation being made, undoubtedly would, confer additional powers upon the Board. No valid constitutional objection to such legislation has been or can be advanced.

"After the water power is harnessed, has the Board of Trustees the authority to convert it into electricity and conduct it from Lockport to the City of Chicago? The answer to the former question seems to be the answer to this. The Drainage Board owns its right of way for the entire distance. It is also required in operating the Drainage Canal to use a large amount of mechanical power in the City of Chicago for the operation of pumps and other devices. The Board certainly is at liberty to bring its water power over its own right of way to Chicago for its own use. The power thus conducted to the city can be disposed of in the city."

#### THE EXACT COST OF DEVELOPMENT.

There can be no pretense that the Board is not in possession of exact figures as to the cost of development of this power. The letter of the Chief Engineer of May 3, 1899, duly considered by the Engineering Committee, fully covers this question, and shows the following expenditures necessary both for the minimum flow of 300,000 cubic feet per minute and the maximum of 600,000 cubic feet per minute:

Rock excavation for head race,	
388,000 yards at 70c.....	\$ 271,600.00
Masonry for head walls, 188,-	
477; masonry for dam, 37,-	
867, 206,314 yards at \$3.50.	722,099.00
Back filling for walls, 418,500	
yards at 25c.....	104,625.00
Rock excavation for tail race,	
2,262,800 yards at 70c.....	1,580,960.00

Total for head and tail  
race .....\$2,668,284.00

The cost of installing hydraulic and electrical plant for transmitting power to Chicago where it can be connected with the city's present installations for electric lighting, is estimated by the chief engineer at \$961,400 for the power developed by 300,000 cubic feet of water and \$1,417,570 for the power developed by 600,000 cubic feet of water. So that the total estimated cost in each case will be:

300,000 cubic feet .....	\$2,668,284
	961,380
Total .....	\$3,629,664
600,000 cubic feet .....	\$2,668,284
.....	1,417,570
Total .....	\$4,085,854

These figures of \$3,629,664 for the entire expense were the result of months of investigation and they have never been varied by the Chief Engineer. In years to come, when the increase in population of the Sanitary District would require the maximum flow of water, an additional expense of less than \$500,000 will provide for the development of the entire energy and nearly double the amount of power transmitted to the city for municipal purposes, as the entire power of the 600,000 cubic feet flow, or in other words about 30,000 horse power can be developed and transmitted at a cost of \$4,085,854.

#### AN UNWISE SUGGESTION.

The suggestion that, in the face of the recent decision of the supreme court specifically denying the right of the city to issue bonds for the development of the

water power, a new contract should be entered into with the city is so misleading as to deserve attention at this time. It is proposed by Trustee Webb that the contract agreed upon between the city and the Sanitary District and adopted by this body last year and just declared invalid by the supreme court, should be executed despite this adverse decision of the court. Section 15 of that contract this day submitted by this Trustee, is as follows:

"15. It is further agreed that in case it should be finally determined by adjudication by the Supreme Court of the State of Illinois, in any case at law or in equity, that the City of Chicago has no right to issue such bonds as are mentioned in Section 14 of this contract for the raising of funds for the construction of said improvements or for other purposes herein contemplated, then, unless the City of Chicago shall be ready to make, and shall proceed to make, such improvements from other available funds, this contract shall become null and void, and the Sanitary District of Chicago shall be free to dispose of said water power to any other bidders or consumers in such manner as it may see fit."

It will be observed that this contract, proposed to be re-enacted, by the very terms of this Section is null and void *from the moment of its execution*; for the supreme court decision, to which it refers and upon which it is dependent for vitality, has already been rendered and is adverse to the City of Chicago and to this contract. The entire contract, by its very words, depends upon a favorable decision of the supreme court, and this decision has *already* been rendered and is *unfavorable*, and the Mayor of the City of Chicago has repeatedly stated within the past week that it is impossible for the City of Chicago to develop this water power, without additional legislation, because of the adverse decision of the court. It is as absolutely impossible to revitalize this contract as it is to restore the circulation in the withered leaves of last autumn; for it is null and dead and void

from the beginning, and this, too, by its very terms which so declare.

#### BE FRANK WITH THE PUBLIC.

It is stated to us that this document comes to us through official channels from the administrative offices of the City of Chicago. The insincerity of a public official who would pretend that by the re-execution of this contract he is preserving the water power for the municipal uses of the City of Chicago is so flagrant as to deserve public condemnation and to be stamped as an act of political chicanery finding few parallels in the spasmodic efforts of public officials to display a virtue which they do not possess. But the public cannot be deceived. The Board of Trustees of the Sanitary District, as the official body of the Sanitary District, do not propose that the public shall be deceived by this demagogic act; and for this reason the undersigned place upon the record these facts and call upon an intelligent public to decide whether frankness and fair dealing in public officials should be commended, or whether chicanery and trickery and demagoguery shall be at a premium in this community, as would be the case were serious consideration given to a contract already declared by the supreme court to be invalid.

It has been argued by the minority that the measure proposed to be presented to the General Assembly will be fought by the gas trust and the electric light trust of the City of Chicago; and, strange to say, the implication is apparently sought to be conveyed that for that reason the measure should not be presented. It is the expectation of the undersigned that this measure *will be opposed* by the gas and electric light trusts just as any other proposition presented at Springfield in the interest of the municipal ownership and development of water power for electric lighting would be opposed by these corpora-



tions—whether that measure might be presented by the Sanitary District or the City of Chicago. No great municipal reform, vesting control of public utilities in the people, has ever been accomplished without the opposition of those corporations which under the guise of vested interests seek to thwart the will of the people, but this fact should not deter any sincere advocate of municipal ownership and control of public utilities from battling resolutely and courageously for his convictions in the matter. Therefore, regardless of the predictions of the opposition from the gas and electric light trusts, the majority earnestly request a vigorous crusade in behalf of the development of the Drainage Canal water power for municipal purposes; and we express the sincere hope that after mature reflection the threats of the minority to obstruct the passage of this measure at Springfield may be abandoned and that no member of this body will be found at the state capitol joining hands with the gas trust in opposition to the cause of the people in the development of this power for the use of the people.

Respectfully submitted,

Signed: ALEX. J. JONES,  
J. C. BRADEN,  
WM. H. BAKER,  
WM. LEGNER,  
FRANK X. CLOIDT.

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#### VIEWS OF THE MINORITY.

"As Trustees of this Board, we are opposed to the levy of an additional direct tax for the development of the water power at Lockport, and assign our reasons herewith as follows:

First: This Board created a Commission for the purpose of devising a plan, or plans, for the improvement of the Chicago River and its branches. This question was seemingly considered

so important that weekly conferences were held so as to acquaint the new members with the facts. However, the financial, physical and territorial questions seemed so great that leading citizens were invited to participate in the deliberations. It resulted in the creation of a Commission. This Board should await the report of said Commission before any steps are taken to go to the Legislature.

Second: The Board should not waste its best efforts and energy on the question of developing this water power, as the situation is entirely in the control of the Sanitary District, and any money raised by direct taxation, or otherwise, should be applied to the most important and vital artery of this City—the Chicago River—and the building of bridges, etc.

Third: The Chief Engineer stated that the development of this water power will cost about three and a half millions of dollars. By raising a direct tax especially for this purpose, it would require at least four years before the works could be completed; and experience teaches us that the longer the time is extended beyond a reasonable time, the more is it likely to cost.

Fourth: We believe that going to the Legislature now will prejudice and lessen our chances of getting legislation on the more important question of the Chicago River. Therefore, this question should wait until the Commission make their final report to this Board.

Fifth: We believe it to be the sense of the tax-payers of this Sanitary District that all permanent improvements to be made from now on should be borne mainly by the issue of bonds, so as to make the future generation pay a part of these burdens, as they will reap a large share of the benefits.

Respectfully,

(Signed) FRANK WENTER,  
THOMAS J. WEBB."

Mr. Carter requested to be recorded as follows:

"I wish to dissent from the conclusions of the majority for the following reasons: The first duty of the Sanitary Board is to provide for conducting a volume of water from Lake Michigan to the Main Channel sufficiently large to comply with the law without injury to commerce on the Chicago River. The method of doing that has not yet been fully determined by this Board. Therefore, it follows that the cost of that

construction is not yet known. It is the duty of this Board to hold in reserve all the financial resources of the Sanitary District until that construction is provided for. The creation of water power is a mere incident to the great work we have in hand."

On motion of Mr. Smyth the Board adjourned.

*A. R. Porter.*  
CLERK

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

MARCH 6, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Twentieth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in

the rooms of the Board, Security Building,  
on Wednesday, March 6, 1901, at 2  
o'clock P. M.

President Jones in the Chair.

On roll call Messrs. Baker, Braden,  
Carter, Jones, Legner, Webb and Wenter  
— even members—were present.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

Rand Drill Company (river plant).....	\$ 7 20
The Kelly-Atkinson Construction Company (Eight-track Bridge).....	55 51
Chicago Union Traction Company (electric power, Taylor Street) .....	75 00
Heldmaier & Neu (Sec. 17, Feb. 15, 1901).....	6,926 50
Lydon and Drews Company (Chicago River improvement).....	10,069 28
Frank M. Montgomery & Co. (bridge royalty and plans).....	12,000 00
	\$ 29,133 49

**ENGINEERING DEPARTMENT.**

The Guntherp-Warren Printing Company (printing).....	\$ 265 50
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March 6,]

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[1901

LAW DEPARTMENT.

James Todd, Attorney (expense).....	\$ 7 00
James Todd, Attorney (expense).....	42 30
Weasmer & Norden (court reporting).....	217 80
Robert M. Simon, Recorder (abstracts).....	1,350 00
	<u>\$ 1,617 10</u>

GENERAL ACCOUNT.

Youghiogheny and Lehigh Coal Company (coal, Juliet) .....	\$ 70 88
Grand total.....	<u>\$ 31,086 47</u>

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

The roll being called, it was so ordered.  
Yeas—Messrs. Baker, Braden, Carter, Jones, L'agner, Webb and Wenter—Seven.  
Nays—None.

MONTHLY REPORT FROM THE TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of February, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

*Receipts.*

Balance on hand at date of last report.....	\$ 1,778,581 11
From A. R. Porter, Clerk, Construction Account.....	\$ 263 00
From A. R. Porter, Clerk, General Account.....	50 00
From A. R. Porter, Clerk, Engineering Account.....	4 00
From A. R. Porter, Clerk, Account C. C. Gilbert, Attorney.....	2,214 75
From Equitable Trust Company, Interest Account.....	438 31
From Home Savings Bank, Interest Account.....	806 80
From Chicago National Bank, Interest Account.....	1,801 82
From Illinois Trust and Savings Bank, Interest Account.....	576 78
Total cash received for month.....	<u>5,055 46</u>

\$ 1,778,586 57

*Disbursements.*

Clerical Department.....	\$ 968 96
Treasury Department.....	408 25
Engineering Department.....	7,898 81
Construction Account.....	28,612 78
Law Department.....	9,281 87
General Account.....	3,719 95
Maintenance Account.....	2,201 68
Police Department.....	1,728 19
Tax Warrants Paid, Levy 1899.....	628 35
Interest on Tax Warrants, Levy 1899.....	25 92

Total cash disbursed.....	\$ 54,968 71
Balance this date, in banks as per schedule endorsed hercon.....	<u>1,723,617 86</u>

\$ 1,778,586 57

*Schedule.*

Chicago National Bank.....	\$ 873,176 69
Illinois Trust and Savings Bank.....	374,502 39
Equitable Trust Company.....	250,000 00
Home Savings Bank.....	200,000 00
National Bank of Illinois.....	25,938 78
Total.....	<u>\$ 1,723,617 86</u>

CHICAGO, March 5, 1901.

F. M. BLOUNT, Treasurer.  
By S. P. BLOUNT, Assistant Treasurer.

## CLERK'S REPORT ON EMPLOYEES.

The Clerk presented the following report showing the number of persons employed by the District for the month ending February 28, 1901:

CHICAGO, March 5, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the month ending February 28, 1901, as the same have been reported to me:

Engineering Department.....	40
Clerical Department. ....	5
Law Department.....	8
Treasury Department.....	1
Police Department.....	17
General.....	4
Maintenance.....	10
Total employes.....	85

Respectfully submitted,

A. R. PORTER,  
Clerk.

The above report was, by unanimous consent, ordered printed and placed on file.

APPROVAL OF BOND OF M. H. M'GOVERN  
& CO ON CONTRACT FOR GRADING  
ROADBED FOR SPUR TRACK ON EAST  
END OF SECTION "K."

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee recommending that the bond of M. H. McGovern & Co., on their contract for grading of roadbed for spur track on the east end of Section "K," being in the sum of \$600.00, with the City Trust, Safe Deposit and Surety Company of Philadelphia as surety, be approved, the report being accompanied by said contract and bond.

Mr. Carter, seconded by Mr. Baker, moved that the report be adopted, and the recommendations contained therein concurred in.

The roll being called the report was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Jones, Legner, Webb and Wenter—Seven.

*Nays*—None.

The following is the report:

CHICAGO, March 6, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance begs leave to report that it has examined the bond given by M. H. McGovern & Co., for the grading of road bed for spur track on the east end of Section "K," said bond being in the sum of six hundred (\$600) dollars with the City Trust, Safe Deposit and Surety Company of Philadelphia as surety.

Your Committee finds said bond to be executed in proper form and hereby approves the surety on said bond and recommends that the same be approved by your Honorable Body.

Respectfully submitted,

(Signed) Z. R. CARTER,

*Chairman.*

FRANK WENTER,  
ALEX. J. JONES,  
WM. LEGNER,  
WM. H. BAKER,  
THOMAS J. WEBB,  
J. C. BRADEN.

*Committee on Finance.*

(Two enclosures.)

The following is the contract:

SANITARY DISTRICT OF CHICAGO

Contract and specifications for grading a roadbed for a spur track at east end of Section K.

*This Agreement*, Made and entered into this sixth (6th) day of March A. D. 1901, by and between the Sanitary District of Chicago, of the first part, and M. H. McGovern and Wm. J. Newman, doing business under the firm name and style of M. H. McGovern & Co., of Chicago, Illinois, of the second part.

A—

*Witnesseth:* That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work,

and to furnish all material, tools, explosives, labor and all appliances and appliances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer of the Sanitary District of Chicago and his properly authorized agents, by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer and his properly authorized agents shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein expressed; and the Chief Engineer shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Wherever the words "Sanitary District" are used in this contract, they shall be understood to mean the Sanitary District of Chicago, as represented by the Board of Trustees of the Sanitary District or their duly authorized and accredited agents.

Wherever the words "Chief Engineer" or "Engineer" are used herein it shall be understood to mean the Chief Engineer of the Sanitary District of Chicago, or his properly authorized agents, limited by the particular duties intrusted to them.

Wherever the word "Contractor" is used herein it shall be understood to mean the person or persons, or co-partnership or corporation entering into the contract as party of the second part.

The following ordinance, passed by the Board of Trustees of the Sanitary District of Chicago, June 23, 1897, is hereby made a part of this contract, and the party of the second part agrees to comply with its provisions, and in case of violation thereof, to subject to the penalties therein authorized to be imposed:

*"Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

"SECTION 1. That in the preparation of all future specifications for contracts for the construction of the Main Channel and auxiliary works, the Engineering Department shall provide that such contracts shall be executed in conformance with the law constituting eight (8) hours a legal day's work in all contract under the Sanitary District of Chicago, and that, in the

employment of labor, contractors shall be required and specifically agree to give preference to union labor.

SECTION 2. That all contracts hereafter executed for the works of the Sanitary District of Chicago shall contain provisions constituting eight (8) hours a legal day's work, and forbidding the employment of any employee or employees for a longer period than eight (8) hours in any twenty-four (24) hours, and that said contract shall vest specific authority in the Police Department of the Sanitary District of Chicago to exercise supervision for the enforcement of this provision, and shall provide that the Board of Trustees of the Sanitary District of Chicago shall be empowered, in all cases of violation of said eight (8) hour law, to deduct and retain from any money accruing to the said contractors a sum as liquidated damages at the rate of five dollars (\$5.00) per hour for each employee who shall be required to work in excess of eight (8) hours per day by any contractor on said Canal."

#### SPECIFICATIONS.

The work to be done consists of excavating, approximately, eight thousand four hundred (8,400) cubic yards of clay from the spoil bank of the Sanitary District on Section K. The said excavation to be done on the line staked out for a spur track connecting the Belt Railway of Chicago on the northwest angle of intersection of said railway with the right of way of the Sanitary District of Chicago.

The work to be done under the direction of the Engineer of the Sanitary District of Chicago, in accordance with lines, marks, stakes and grades established by him. The excavated material to be disposed of upon the right of way and lands of the Sanitary District in spoil banks, as conveniently located as may be to the site of the excavation; so much of this excavation as may be needed for filling and making an embankment for this spur track (an amount approximating one thousand cubic yards) shall be placed thereon as directed by the Engineer.

The work shall be commenced in time to insure its completion on or before April 15th next.

Payment to be made for excavated material only, and the price bid and accepted per cubic yard shall cover all costs of every name or nature incident to the work.

Current estimates will be made semi-monthly as the work progresses, and payments made thereon in amount equal to eighty-seven and one half (87½%) per cent of the total value of the work done, the withheld percentage to be paid in the final voucher, upon the completion of the work. Thirty days after the work shall have been completed, final payment shall be made, upon the certificate of the Chief Engineer

that all of the terms of the contract have been complied with.

Before final payment is made satisfactory evidence must be furnished the Sanitary District that all bills for labor, material and supplies contracted for on account of this work have been paid in full.

In consideration of said work being carried on in the time and manner as hereinbefore specified, the said Sanitary District agrees to pay to the said contractor for the excavation and grading required to be done, the following amount per cubic yard, and the said contractor agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the tools, materials, labor, etc., etc.:

For material excavated measured in excavation, per cubic yard, the sum of twenty-four and one-half cents (24½).

In Witness Whereof, On the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set their hand and seal.

M. H. MCGOVERN & Co.  
M. H. MCGOVERN,  
666 West Twelfth street.  
WM. J. NEWMAN,  
2060 West Lake street.  
SANITARY DISTRICT OF CHICAGO,  
By ALEX. J. JONES,

Attest: *President.*  
A. K. PORTER,  
*Clerk.*

CLERK DIRECTED TO RETURN CHECKS  
TO THE AMERICAN BRIDGE COMPANY  
AND LYDON & DREWS COMPANY.

Mr. Carter, Chairman, presented a report from the Finance Committee recommending that the Clerk of the District be directed to return the checks of the American Bridge Company and Lydon & Drews Company, deposited with bids on contract for the erection of the Harrison Street bridge.

The following is the report:

CHICAGO, March 6th, 1901.

To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:

GENTLEMEN—Your Committee on Finance recommends that the checks of the American Bridge Company and the Lydon & Drews Company, deposited with their

bids on contracts for Harrison Street bridge, and held by order of your Honorable Body, be released and the Clerk directed to return same to the said bidders, respectively.

Respectfully submitted,

(Signed) ZINA R. CARTER,  
*Chairman.*

WM. H. BAKER,  
JOS. C. BRADEN,  
WM. LEGNER,  
ALEX. J. JONES,  
THOMAS J. WEBB,  
FRANK WENTER.

*Committee on Finance.*

(One enclosure.)

Mr. Carter, seconded by Mr. Baker, moved that the report be adopted and the recommendations contained therein concurred in.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Jones, Legner, Webb and Wenter—Seven.

*Nays*—None.

REPORT ON BIDS FOR EXCAVATION OF  
SOLID ROCK IN THE SOUTH FORK OF  
THE SOUTH BRANCH OF THE CHICAGO  
RIVER, NEAR THIRTY-FIFTH STREET.

Mr. Braden, Chairman of the Committee on Engineering, presented a report of the Committee in reference to the bids received for excavating solid rock from the South Fork of the South Branch of the Chicago River, near Thirty-fifth Street, referred to the Committee at the meeting of the Board held February 20, 1901, (page 7008 of the Proceedings), recommending that the contract be awarded to the Lydon & Drews Company, said company being the lowest bidder.

The following is the report:

CHICAGO, March 6, 1901.

To the Honorable, the Board of Trustees of  
the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering reports a communication from your Chief Engineer transmitting a tabulation of bids for excavating solid rock

from the South Fork of the South Branch of the Chicago River, near Thirty-fifth Street.

It appears from the list of bids submitted that Lydon & Drews Company is the lowest bidder upon said work, the price stipulated being six and thirty-five hundredths (6.35) dollars per cubic yard.

Your Committee recommends that the work of excavating said rock be awarded to said Lydon & Drews Company, whom the Committee finds to be the lowest responsible bidder, and that the President and Clerk of the District be authorized and directed to execute said contract on behalf of the District, in the form to be prepared according to said advertisement, plans and specifications, and as soon as the same shall have been executed by the said Lydon & Drews Company for the work awarded to them, and a bond shall have been furnished and approved by the Committee on Finance for the faithful performance of the work specified, in the penal sum of six hundred (\$600) dollars.

The Committee further recommends that the checks of all other bidders be returned to said bidders, respectively, when said contract has been executed.

Respectfully submitted,

(Signed) JOS. C. BRADEN,  
*Chairman.*  
WM. H. BAKER,  
THOMAS J. WEBB,  
WM. LEGNER.  
Z. R. CARTER,  
*Committee on Engineering.*

Mr. Braden, seconded by Mr. Baker, moved that the report be adopted and the recommendations contained therein concurred in.

The roll being called the report was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Jones, Legner, Webb and Wenter—Seven.

*Nays*—None.

Messrs. Wenter and Webb requested to be recorded as having voted for awarding the contract to the Lydon & Drews Company owing to the importance of the commercial interests involved; that they held

the figures at which the contract was awarded to be excessively high, but voted for the same, as the time required for re-advertising would delay the work to such an extent as to interfere with the navigation of the South Fork of the South Branch of the Chicago River.

PRESIDENT AND CLERK DIRECTED TO ADVERTISE FOR THE SALE OF STONE UPON THE SPOIL BANKS OF THE SANITARY DISTRICT.

Mr. Braden, Chairman of the Committee on Engineering, presented a report from the Committee in reference to the sale of stone from the spoil banks of the Sanitary District, recommending that the President and Clerk be authorized and directed to advertise the sale of stone in accordance with the terms of the advertisement submitted.

The following is the report:

CHICAGO, March 6, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering, to which was referred at a meeting of the Board of Trustees held February 18, 1901, (page 6996 of the Proceedings) the matter and manner of advertising for the sale of stone upon the spoil banks of the Sanitary District, beg leave to report that they have duly considered the same and recommend that the President and Clerk of the District be authorized and directed to advertise for the sale of same in accordance with form of advertisement submitted herewith.

Respectfully submitted,

(Signed) JOS. C. BRADEN,  
*Chairman.*  
WM. H. BAKER,  
THOMAS J. WEBB,  
Z. R. CARTER,  
FRANK WENTER.  
WM. LEGNER,  
*Committee on Engineering.*

The following is the form of advertisement submitted:



## SANITARY DISTRICT OF CHICAGO.

*To the Contractors and Dealers in Stone and Earth, as Well as Users Thereof:*

Sealed proposals addressed to the Board of Trustees of the Sanitary District of Chicago and indorsed:

"Proposals for the purchase of stone and earth on the banks of the Main Drainage Canal" will be received by the Clerk of the said Sanitary District of Chicago at Room 1110 Security Building, Chicago, Illinois, until 12 M. (standard time) of Wednesday, the 10th day of April, 1901, and will be publicly opened by said Board of Trustees at the meeting of the Board held on that day. The stone and earth upon which bids are invited are now piled along the channel of the Main Drainage Canal between Robey Street and Lockport. Bids will be received in two ways:

First, upon the entire amount of stone and earth excavated from the channel and disposed of upon the banks adjacent thereto, covered in one bid.

Second, upon fractional parts of the whole volume of stone and earth, designated by sections or half sections identical in length and bounds with those described in the contracts for excavation.

The rock sections are numbered from one (1) to fifteen (15) consecutively, beginning at Willow Springs and ending at Lockport on the south, and the earth sections are lettered from A at Willow Springs to O at Robey Street (omitting J).

Bids will be based upon the volume of material excavated, as it was measured for payment to the contractors who removed it, less so much as was used for wall building, which amount is also shown by the contractors' estimates.

Every bid presented must define the sections or section covered by the proposal. Each bid must be accompanied by a certified check or cash equal to ten per cent. of the aggregate amount of the bid, based upon the yardage which it covers. All certified checks must be drawn upon some responsible bank doing business in the City of Chicago, and be made payable to the Clerk of the Sanitary District of Chicago.

All checks deposited with bids will be held by the Sanitary District until all of the bids received under this advertisement have been canvassed and an award made, or all bids rejected. If an award is made, the check of the successful bidder shall be turned into the Treasury of the Sanitary District as a first payment on account of the stone or earth covered by the bid. The successful bidder must within ten days, after being notified by the Clerk of the award to him (or them if a firm), enter into a contract with the Sanitary District and file a bond satisfactory to the Board of Trustees in an amount equal to fifteen (15) per cent. of the value of the stone or earth covered by his (or their) bid. A failure to enter into such a contract with bond, as specified, will forfeit the certified

check deposited with the bid to the Sanitary District.

All bids must be on blank forms furnished by the District.

Information as to the amounts of stone on each section will be furnished from the office of the Chief Engineer on application.

Bidders are required to state in their bids their individual names and places of residence in full.

The Board of Trustees reserve the right to reject any and all bids.

THE SANITARY DISTRICT OF CHICAGO,

By .....

*President of the Board of Trustees.*

Attest:

.....

*Clerk.*

CHICAGO, March 6th, 1901.

(One enclosure.)

Mr. Braden, seconded by Mr. Legner moved that the report be adopted, and the recommendation contained therein concurred in.

The roll being called, the report was adopted.

Yeas — Messrs. Baker, Braden, Carter, Jones, Legner, Webb and Wenter—Seven.

Nays—None.

REPORT IN REFERENCE TO GRANTING PERMISSION TO THE UNIVERSITY OF WISCONSIN ATHLETIC ASSOCIATION TO HOLD BOAT RACES ON THE DRAINAGE CHANNEL.

Mr. Braden, Chairman of the Committee on Engineering, presented a report from the Committee, accompanied by a report from the Sub Committee of Three, to whom was referred the communication from the Athletic Association of the University of Wisconsin, recommending that the privilege to hold a boat race on the waters of the Drainage Channel be granted to said Association, and that they be permitted to build observation stands on the banks of the Channel, the stands to be removed within thirty days from date of notice for removal of same.

The following is the report:

CHICAGO, March 6, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engi-

neering, to which was referred the question of granting privilege to the University of Wisconsin to use the Drainage Canal and its embankments for the purpose of boat racing and running observation trains in connection therewith, beg leave to report that a Sub-Committee of Three, consisting of Messrs. Cloldt, Wenter and Smyth were appointed by your Committee to take charge of the entire matter, and after due investigation and consideration of the same have reported to your Committee.

Your Committee advises that it has adopted the report of the Sub-Committee and therefore recommends that the same hereto attached and submitted herewith, be concurred in by your Honorable Body.

Respectfully submitted,

(Signed) JOS. C. BRADEN,  
*Chairman.*  
WM. H. BAKER,  
THOMAS J. WEBB,  
Z. R. CARTER,  
FRANK WENTER,  
WM. LEGNER.  
*Committee on Engineering.*

The following is the Sub-Committee's report:

CHICAGO, February 7, 1901.

To the Honorable, the Committee on Engineering:

GENTLEMEN—Your Sub-Committee, to whom was referred the question of granting privilege to the University of Wisconsin to use the Drainage Canal and its embankments for the purpose of boat racing and running observation trains in connection with said races, beg leave to report:

First. We recommend that privilege be granted to Wisconsin University, or any other university whoever may make a request to the Trustees of the Sanitary District for the use of the Drainage Channel, for the purpose of boat racing and building grand stands, or observation stands, on the banks of said Channel, said stands to be removed thirty days from date of notice of such removal.

Second. We have considered the question of extending to the Santa Fe Railroad Company, or any other company or corporation, the privilege of building tracks upon the banks on either side of the Drainage Channel for the use of running observation trains, and we believe compliance with

such request would establish a bad precedent; therefore, your Committee recommends that said privilege be not granted.

Respectfully submitted,

(Signed) FRANK X. CLOIDT,  
*Chairman.*  
FRANK WENTER,  
THOMAS A. SMYTH,  
*Sub-Committee.*

(One enclosure.)

Mr. Braden, seconded by Mr. Baker, moved that the report be adopted and the recommendations therein contained concurred in.

The roll being called, the report was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Jones, Legner, Webb and Wenter—Seven.

*Nays*—None.

#### COMMUNICATION FROM THE POSTAL TELEGRAPH CABLE COMPANY.

The Clerk presented a communication from the Postal Telegraph Cable Company, by C. M. Baker, General Superintendent of Construction, requesting permission to temporarily rebuild their telegraph line close to the east line of the Drainage Canal right of way, and adjacent to the west line of the Atchison, Topeka and Santa Fe Railroad Company's right of way, and crossing the Drainage Canal at Komeo, and north for a distance of about one-half a mile, to avoid coming in contact with the blasting in the quarry and the derricks on same; the premises to be vacated by said company when the quarry is abandoned.

On motion of Mr. Baker the communication was referred to the Committee on Engineering.

By unanimous consent the views of the members of the Board, majority and minority, in reference to the development of the Drainage Canal Water Power and Bill to be presented to the General Assembly at Springfield, and this day presented, were ordered printed in the proceedings of February 27, 1901.

#### ADJOURNMENT.

On motion of Mr. Braden the Board adjourned.

*A. R. Porter,*  
CLERK

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

MARCH 13, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Twenty-first Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Wednesday, March 13, 1901, at 2 o'clock P. M.

President Jones in the Chair.

On roll-call Messrs. Baker, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Eight members—were present.

*Absent*—Mr. Braden.

**MINUTES.**

On motion of Mr. Smyth, the minutes of the regular meeting, held March 6, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

The Belt Railway Company of Chicago (Sec. "K," bridge).....	\$16,612 04	
The Pennsylvania Steel Company (C. T. T. R. R. Co.'s bridge).....	92,065 10	
		\$108,677 n14

**ENGINEERING DEPARTMENT.**

Morrison, Plummer & Co. (sundries).....	\$	1 25
E. Ruane (window lights).....		2 50
Hibbard, Spencer, Bartlett & Co. (hardware).....		8 85

Marshall Field & Co. (signal cloth).....	7 47	
Alex. G. Hug, Manager (typewriter repairs).....	4 50	
The Consumers' Company (water).....	5 64	
American Water Company (water).....	10 13	
S. J. Stebbins Company (nails, etc.)..	8 05	
The Soper Lumber Company (oak stakes).....	10 00	
Advance Packing and Supply Company (rent, air compressor).....	25 00	
The Book Shop Bindery (atlas of Illinois).....	7 50	
H. Isak (gauge reading, February, 1901).....	10 00	
Edmund Kandler & Co. (repairing transit).....	12 00	
The Kent's Express and Teaming Company (teaming).....	16 00	
H. Schultz & Co. (paper boxes).....	14 40	
Chicago Title and Trust Company (information on title).....	15 00	
W. H. Sallsbury & Co. (rubber goods).....	24 70	
Henry Gebhardt (fittings).....	25 75	
Pearson Bros. (blue prints).....	1 44	
Keuffel & Esser Company (drafting supplies and prints).....	25 24	
Eugene Dietzgen Company (prints).....	96 58	
R. Seelig (repairing instruments).....	51 50	
Burke & James (photo supplies).....	58 06	
Cameron, Amberg & Co. (stationery).....	74 46	
Theodore Buskirk (expense).....	5 10	
W. T. Keating (expense).....	8 10	
W. T. Keating (expense).....	21 64	
G. M. Wisner (expense).....	37 10	
Wm. Trinkaus (expense).....	47 48	
James A. Seddon (professional services).....	300 00	
Robt. W. Hunt & Co. (inspecting bridge material).....	1,711 84	
Verne S. Pease (professional services).....	354 50	
		\$ 2,991 73

## CLERICAL DEPARTMENT.

A. B. Dick Company (mimeograph supplies).....	2 70
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## LAW DEPARTMENT.

Quinn & Quinn (legal services).....	\$ 308 75	
John W. Nadelhoffer (expense).....	58 81	
		\$ 357 56

## GENERAL ACCOUNT.

John M. Smyth Company (door mat).....	\$ 1 25	
The Inter Ocean (advertising).....	21 30	
The Chicago Chronicle Company (advertising).....	26 40	
W. T. Keating (expense).....	5 56	
The Trenton Iron Company (wire).....	235 08	
		\$ 289 54

## POLICE DEPARTMENT.

Thos. F. Ryan (coal).....	29 00
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## MAINTENANCE ACCOUNT.

Norton & Co. (salt, Lockport).....	\$ 3 00	
Standard Oil Company (oil, Lockport).....	7 02	
Thos. F. Ryan (coal, Lockport).....	19 75	
Standard Oil Company (oil, Bridgeport).....	5 54	
		\$ 35 31

Grand total..... \$112,332 96

Mr. Carter, seconded by Mr. Legner, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered:

*Yeas*—Messrs. Baker, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

COMMUNICATION FROM PRESIDENT JONES  
IN REFERENCE TO THE ATTITUDE OF  
THE CITY AUTHORITIES ON THE RE-  
MOVAL OF WASHINGTON STREET TUN-  
NEL OBSTRUCTIONS.

President Jones submitted a communication to the Board, accompanied by a statement from Chief Engineer Isham Randolph, regarding the unavailing efforts the Chief Engineer has made to comply with the Board's directions to remove the obstructions in the Chicago River from the crown of the Washington Street tunnel in the interests of navigation; also showing that the city authorities' attitude has been obstructive in the matter, and recommending that the instructions heretofore given the Chief Engineer, at the meeting of the Board of February 6, 1901 (page 6988 of Proceedings), to remove said obstructions, be withdrawn.

The following is the communication:

CHICAGO, March 18, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—I submit herewith for your consideration the report of the Chief Engineer in regard to the unavailing efforts which he has made to comply with the Board's directions to remove the obstruction from the crown of the Washington Street tunnel in the interest of navigation. His communication shows the attitude of the city to have been obstructive throughout and all efforts of the Sanitary District to comply with the petitions of the navigation interests for the removal of this obstruction have been thwarted by the attitude of the corporate authorities of the City of Chicago.

As the date of the opening of navigation is now so short as to preclude the possibility of undertaking this work without occasioning serious interruption to vessels

after the opening of navigation, I recommend that the instructions of your Honorable Body to the Chief Engineer be now withdrawn and that his communication on the subject be made a matter of record and printed in the Proceedings, as showing the earnest efforts which this Board has made to meet the necessities of navigation at this point.

Respectfully submitted,

ALEX. J. JONES,

*President.*

The following is the statement of Chief Engineer Isham Randolph:

CHICAGO, March 12, 1901.

*Hon. Alexander J. Jones, President:*

DEAR SIR—The propriety of removing the obstructions known to exist in the west draw of the Washington Street Bridge, in the shape of material resting upon the top of the tunnel, but not a part thereof, has been under discussion for many months.

On January 23rd (see page 6968 of Proceedings), a Committee of three was appointed to confer with the Commissioner of Public Works in regard to this matter. About this time the Commissioner of Public Works left the city for an absence of several weeks, and the matter was taken up by the Deputy Commissioner and one conference had between him and the Committee. Then, a day or two later, acting for the committee, I met the Deputy Commissioner, City Engineer and Mr. Colton, who was Superintendent for Fitz-Simons & Connell at the time this work was constructed, and as a result of that conference it was agreed between the parties thereto that it was entirely safe to remove the obstructions if the same was done in a careful and proper manner. The Chief Engineer reported this to the Committee, and on February 6th they reported to the Board (see page 6988 of Proceedings) recommending that the Chief Engineer be authorized to proceed with the work of removing the obstructions.

Pursuant to this authority, which was then granted, the Chief Engineer, after receiving propositions from parties interested in this line of business, arranged with Lydon & Drews for the use of the necessary tools and equipments for doing the work. He asked permission from the

city to proceed. The Deputy Commissioner said that he would have to refer the matter to the Law Department for a determination as to the propriety of granting the permit. Matters drifted along without any action until the return of the Commissioner of Public Works, about February 21st. I saw him on that day and was told by him that his advice from the City Attorney was that he could not issue this permit without an action of the Council. I wrote him on that day sending a blue print showing the work which we proposed to do and asking that he get an order through the Council permitting us to do it. He submitted the question to the Council at its next meeting, which, I think, was on February 24th, and it was referred to a Committee. Since then no action has been had, and the season is now so far advanced that the work will be subject to constant interruption by boats navigating the channel, and the delay and expense would be so great that it seems to me we should now abandon all effort in this direction, as we have done everything which could possibly be expected of us to relieve this embarrassment to navigation.

Respectfully submitted,  
(Signed) ISHAM RANDOLPH,  
Chief Engineer.

Mr. Smyth, seconded by Mr. Baker, moved that the recommendation contained in the President's communication, to withdraw the instructions heretofore given the Chief Engineer to remove the obstructions from the crown of the Washington Street tunnel in the Chicago River, be concurred in.

The motion prevailed unanimously, and it was so ordered.

LEASE BETWEEN THE SANITARY DISTRICT AND THE ROCK RUN STEAMBOAT AND PARK COMPANY, OF JOLIET, ILL., ACCEPTED.

The President submitted a form of lease between the Sanitary District and the Rock Run Steamboat and Park Company, of Joliet, Ill., accompanied by a money order on the Wells-Fargo Express Company, in the sum of \$3.00, the lease being for a strip of land 25 by 90 feet on the west side of the Drainage Channel, and lying about 250 feet south of the Jefferson Street

Bridge; the term of the lease to be from the 1st day of April, 1901, to the 1st day of June, 1901.

Mr. Webb, seconded by Mr. Carter, moved that the said lease, in the form as presented, be accepted by the Board.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

#### REPORT OF THE LAW DEPARTMENT.

The Clerk presented the report of the Law Department for the month ending February 28, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

CHICAGO, March 13th, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to transmit the report of the Law Department for the month of February, A. D. 1901.

The following are the expenses of the Law Department:

Legal services.....	\$ 1,190 84
Witness fees.....	793 55
Court costs.....	40 00
Salaries.....	1,948 84
Stationery, printing, etc.....	77 65
General expenses.....	57 60
Water tax...?.....	8 63

Total for February.....\$ 4,111 61

The following cases have been begun during the month:

W. H. Wallace vs. the steam barge H. Luella Worthington, No. 9332, in the District Court of the United States. This is a libel for \$4,321.05 in which the respondent brought in the Sanitary District as co-respondent by filing a petition under Rule 59 in admiralty. This case was reached on Judge Kohlsaat's admiralty calendar for February, but the time in which the District had to plead not having expired, it was continued to the March term.

Patrick R. Bannon vs. the Sanitary District of Chicago, Gen. No. 13353, in the Cir-

cuit Court of Will County. This is a suit for \$40,000 for damages to the land of the plaintiff caused by overflow.

Drainage Canal Transportation and Amusement Company, a corporation, vs. The Sanitary District of Chicago, No. 9530, in the District Court of the United States. This is a libel for \$15,000, for damages caused by obstructing the Main Channel and preventing the complainant from navigating the Channel with its excursion steamer "I. M. Weston."

The following proceedings were had in the cases mentioned:

In the case of John Lussem vs. The Sanitary District of Chicago, in the Circuit Court of Cook County, a certificate of evidence has been approved by Judge Neely and filed.

Sanitary District of Chicago, appellant, vs. The Canal Commissioners, appellees, No. 9821, in the Appellate Court of the First District, the record has been filed and a motion suggesting a diminution of the record and for a writ of *certiorari* taken under advisement.

Case of John V. Farwell Company vs. Lydon & Drews Company et al. was dismissed on motion of the Sanitary District but afterwards reinstated.

The case of the Sanitary District for use of Guilford vs. Agnew et al. has been set for March 19th before Judge Tuthill.

The case of the Sanitary District of Chicago vs. Robert Law et al. The motion of the defendant for a new trial was overruled and judgment entered by Judge Clifford. An appeal was prayed and allowed to the Supreme Court. Pending the appeal the Attorney has been authorized to deposit \$20,875.23, the amount of the judgment, with the County Treasurer.

In the case of The State of Missouri vs. The State of Illinois et al. in the Supreme Court of the United States, an opinion has been rendered by Justice Shiras overruling the demurrer of the defendants, which will necessitate the trial upon the merits.

Sanitary District of Chicago vs. The City of Joliet, in the Supreme Court of Illinois. In this case the court holds, in an opinion rendered by Justice Cartwright,

that the property of the appellant is subject to special assessment for the purpose of constructing a sewer, on the ground that the market value is thereby enhanced, notwithstanding the limited uses to which it may be put.

Considerable time has been devoted to an examination of a large number of law suits, and also the records of the County Treasurer in order to ascertain the correctness of a bill presented by Will F. A. Bernamer for services alleged to have been rendered in collecting certain taxes due to Sanitary District.

In addition to the above, the examination of abstracts to property adjacent to the Chicago River, the details of the litigation and the regular routine work have occupied the time of the Department.

Respectfully submitted,

JAMES TODD,  
*Attorney.*

COMMUNICATION FROM THE LAW DEPARTMENT IN REFERENCE TO THE CASE OF THE SANITARY DISTRICT VS. ROBERT H. LAW, ET AL.

The Clerk presented the following communication from James Todd, Attorney of the District:

CHICAGO, March 13, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—In the case of the Sanitary District of Chicago vs. Robert H. Law et al., lately pending in the Circuit Court of Cook County, the particulars of which were reported to your Honorable Body February 13, 1901 (page 6995 of the proceedings), the said Circuit Court has ordered the award of the jury therein to be paid to the Merchants' Loan and Trust Company under the provisions of the Sanitary Act, instead of the County Treasurer of Cook County, as recommended in said report.

I, therefore, ask that a voucher be ordered drawn in favor of the Merchants' Loan and Trust Company, instead of the County Treasurer of Cook County, in accordance with the order of said court.

Very respectfully,  
JAMES TODD,  
*Attorney.*

Mr. Smyth, seconded by Mr. Baker, moved that the action of the Board of February 18, 1901, (page 6995 of Proceedings), directing the President and Clerk of the District to pay, on the voucher of the Attorney, to the County Treasurer of Cook County, the sum of \$20,875.28, being the amount awarded by the verdict and decree of the Circuit Court of Cook County to Robert H. Law et al., as compensation for the property in question, be rescinded and the communication of the Attorney of the District referred to the Committee on Finance, with power to act.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Carter, Cloidt, Jones, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

**COMMUNICATION FROM THE CHIEF ENGINEER IN REFERENCE TO REQUEST FOR A PERMIT FROM THE CITY AUTHORITIES TO CLOSE MAIN STREET AND ASHLAND AVENUE.**

The Clerk presented a communication from Chief Engineer Isham Randolph, informing the Board that he had made application to the city authorities for a permit to close Main Street and Ashland Avenue and remove the existing structures, so as to enable the contractors to proceed with the erection of the substructures at said streets, but had, at this date, received no reply thereto.

The following is the communication:

CHICAGO, March 18, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The contracts for Ashland Avenue and Main Street Bridges were recommended on January 30th.

The superstructure of the Main Street Bridge to be let to the American Bridge Company; the substructure to Lydon & Drews Company.

The superstructure of the Ashland Avenue Bridge to the Massillon Bridge Company; substructure to Page & Shnable.

These recommendations were accepted by the Board on February 2d (page 6979). Some little time was lost in the prepara-

tion of bonds and the execution of contracts, but on February 27th I applied for permit to close these two streets and remove the existing structures, so that the contractors might begin upon the substructures. Up to the date of this communication I have not received this permit from the city. I am advised by the City Engineer that the request was referred to him and that he recommended that the permit be issued. I sent a letter to the Commissioner this forenoon asking for definite information upon this subject. He was engaged and the letter was taken by the Deputy Commissioner, who promised to look into the matter and advise us, if possible, by two o'clock.

Respectfully submitted,

ISHAM RANDOLPH,

*Chief Engineer.*

Mr. Carter moved that the President of the Board be directed to communicate with the city authorities in reference to the above matter and report back to the Board.

The motion prevailed unalmsomly, and it was so ordered.

**COMMUNICATION FROM THE MARSHAL OF THE SANITARY DISTRICT.**

The Clerk presented the following communication from E. J. Coen, Marshal of the Sanitary District:

CHICAGO, March 7, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On January 21, 1901, we had stolen from Sections G and H, Lyons Township, in Cook County, 11,600 feet of copper wire.

On January 23d we arrested John Lucas Michael Toof and Wm. Smith, and found in their possession 11,600 feet of the wire, which we identified as the property of the Sanitary District.

We had the above parties indicted on three counts, and to-day we had them tried and convicted before Judge Tuley on the first count, and sentenced to the penitentiary under an indeterminate term of from one to fourteen years.

Respectfully submitted,

E. J. COEN,  
*Marshal.*

The above communication, was by unan-



ymous consent, ordered printed and placed on file.

**RESOLUTIONS IN REFERENCE TO FAILURE OF THE CORPORATE AUTHORITIES OF THE CITY OF CHICAGO TO COMPLY WITH AGREEMENT ENTERED INTO WITH THE SANITARY DISTRICT TO CONSTRUCT CONDUIT AT THIRTY-NINTH STREET AND LAWRENCE AVENUE FOR OUTLET OF INTERCEPTING SEWER SYSTEM.**

Under the head of new business, Mr. Carter presented the following resolutions:

**WHEREAS**, The Sanitary District of Chicago, did, on the second day of February, 1898, adopt an ordinance submitted by the Honorable Carter H. Harrison, Mayor of Chicago, containing an agreement by which the City of Chicago was immediately to enter upon the work of constructing a twenty-foot conduit on Thirty-ninth Street, from Lake Michigan to the Halsted Street slip, and a sixteen-foot conduit on Lawrence Avenue, from Lake Michigan to the Chicago River, to be the outlet of the intercepting sewer system to be constructed by the City of Chicago for the drainage into the Drainage Canal of that portion of the city now draining into the lake; and

**WHEREAS**, The Sanitary District on its part did agree to perpetually maintain the said conduits, and to operate for all time the pumping stations to be constructed in connection therewith for the use, not only of said conduits, but for the pumping of the sewage to be conducted thereto by the north and south intercepting sewers emptying into the same; and

**WHEREAS**, The City of Chicago did, on the second day of May, A. D. 1898, let contracts for the construction of these conduits, and its officers, in statements to the Trustees of the Sanitary District, asserted that said construction would be completed within two years, or by May, 1900; and

**WHEREAS**, At this date, nearly a year after the estimated date of completion, considerably less than fifty per cent of the Thirty-ninth Street conduit work, and less than thirty-three and one-third per cent of the Lawrence Avenue conduit work has been completed by the City of Chicago; and

**WHEREAS**, Work on the Thirty-ninth Street conduit absolutely ceased on April 10, 1900, and notwithstanding repeated and urgent requests of Trustees of the Sanitary District that work be resumed, for practically a year past no work whatever has been done on said conduit by the City of Chicago to fulfill its contract with the Sanitary District; and

**WHEREAS**, The new contract for the completion of the Thirty-ninth Street conduit was approved in November, 1900, yet no work whatever has been performed thereunder up to this time, and the corporate authorities of the City of Chicago appear to have entirely abandoned the work of said conduits and intercepting sewer; and

**WHEREAS**, This failure of duty on behalf of the City of Chicago is a constantly increasing menace to the public health, and will continue so so long as said conduits and intercepting sewer system shall remain uncompleted and the sewage of the twenty-two and one-half square miles of the City of Chicago north of Eighty-seventh Street, besides the forty-two and one-half south of that street and outside of the Sanitary District, permitted to drain into the lake, and thus contaminate the water supply of this community; and

**WHEREAS**, This delay makes it necessary at times, and especially at this time, for the Health Department to issue a public warning for the boiling of water before using; and notwithstanding these warnings, this community is threatened with a greatly increased mortality throughout the city; and

**WHEREAS**, This condition, in view of the vast expenditures of the Sanitary District for sanitary purposes, has become intolerable and is working great injustice to the officials of the Sanitary District and being accepted by many as indicating the failure of the purposes of the Sanitary District of Chicago; therefore, be it

*Resolved*, By the Board of Trustees of the Sanitary District, that we regard the failure of the City of Chicago to carry out its contract with the Sanitary District and the indifference of the executive officials of the city to their sacred obligations to the public, as an increasing menace to the health

of this community which should be no longer endured.

*Resolved, further,* That the President of the Board of Trustees be and he is hereby directed on behalf of the Sanitary District to demand a compliance of the City of Chicago with its contract entered into with the Sanitary District by the immediate resumption and prompt prosecution of the work of constructing said conduits and intercepting sewers, since no financial deficiency in any way interferes with or retards the prosecution of this work;

*Resolved, further,* That in the event of the failure of the corporate authorities of the City of Chicago immediately to enter upon the performance of its contract duties as aforesaid the President of the Board and the Law Department of the Sanitary District be directed immediately to begin such legal proceedings as will enforce the specific performance of this contract and safeguard the health of the people of the Sanitary District, who for ten years have contributed to the construction of the Drainage Canal and who are now being largely deprived of the sanitary benefits thereunder by reason of the neglect and indifference of the administrative officials of the City of Chicago.

Mr. Carter, seconded by Mr. Cloldt, moved that the resolutions be adopted.

Mr. Wenter, seconded by Mr. Webb, moved as a substitute that the resolutions be referred to the Committee on Engineering, to report back to the Board one week from date.

The roll being called the substitute motion was lost.

*Yeas*—Messrs. Webb and Wenter—Two.

*Nays*—Messrs. Baker, Carter, Cloldt, Jones, Legner and Smyth—six.

The Chair then announced that the motion made by Mr. Carter to adopt the resolutions was now before the Board, and directed the Clerk to call the roll thereon.

The roll being called the resolutions were adopted.

*Yeas*—Messrs. Baker, Carter, Cloldt, Jones, Legner and Smyth—Six.

*Nays*—Messrs. Webb and Wenter—Two.

COMMUNICATION FROM PRESIDENT JONES SUBMITTING CONTRACTS FOR THE ERECTION OF THE SUB AND SUPERSTRUCTURES OF BRIDGES AT CANAL AND MAIN STREETS AND ASHLAND AVENUE, TO BE PUBLISHED IN THE PROCEEDINGS.

Under the head of new business, President Jones presented a communication and submitted the contracts for the erection of the sub and superstructures of bridges at Canal and Main Streets and Ashland Avenue, informing the Board that the contracts had not been published at the time of the approval of the bonds, and recommending that said contracts be published in the Proceedings of the Board as of this date.

The following is the communication:

CHICAGO, March 18, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Honorable Body on February 2, 1901, (page 6979 of the Proceedings) awarded the contracts for the erection of the sub and superstructures for the bridges across the Chicago River at Canal and Main Streets and Ashland Avenue, and on February 6, 1901, (page 6987 of the Proceedings) approved the bonds of the Lydon & Drew Company for the erection of substructures for the bridges at Canal and Main Streets, and the bond of Page & Shnable for the erection of the substructure for the bridge at Ashland Avenue. On February 13, 1901, (page 6994 of the Proceedings) the bonds of the American Bridge Company for the erection of the superstructures of bridges at Canal and Main Streets were approved, and February 20, 1901, (page 7002 of the Proceedings) the Board approved the bonds of the Massillon Bridge Company for the erection of the superstructure for the bridge at Ashland Avenue.

The above mentioned contracts not having been published in the Proceedings of the Board at the time of the approval of said bonds, as has been the custom heretofore, I recommend that said contracts, which are herewith submitted, be published in the Proceedings of the Board as of

this date, and request the concurrence of your Honorable Body herein.

Respectfully submitted,

ALEX. J. JONES.

*President.*

Mr. Baker, seconded by Mr. Symth, moved that the recommendation contained in the communication of the President be concurred in.

The motion prevailed unanimously, and it was so ordered.

The following are the contracts:

**SUPERSTRUCTURE FOR ASHLAND AVENUE BRIDGE.**

**"SANITARY DISTRICT OF CHICAGO.**

Contract and specifications for the Superstructure of a Highway Lift Bridge of the Page type, crossing the South Branch of the Chicago River at Ashland Avenue, in the City of Chicago, to be built for the Sanitary District of Chicago.

*This Agreement.* Made and entered into this 13th day of February A. D. 1901, by and between the Sanitary District of Chicago, of the first part, and Massillon Bridge Company, a corporation organized and existing under the laws of the State of Ohio with its principal office in the City of Massillon in the State of Ohio, of the second part.

A—

Witnesseth, That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the Page Bascule Lift Bridge for the Sanitary District, Chicago, crossing the South Branch of the Chicago river at Ashland avenue, in the city of Chicago.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer or other designated representative of the Sanitary District of Chicago, and his properly authorized agents, and by whose measurements and calculations the quantities and amounts of the several kinds of work performed

under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer or other designated representative shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein expressed; and the Chief Engineer or other designated representative of the Sanitary District in charge of said work shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Wherever the words "Sanitary District" are used in this contract, they shall be understood to mean the Sanitary District of Chicago, as represented by the Board of Trustees of the Sanitary District or their duly authorized and accredited agents.

Whenever the word "Engineer" is used herein, it shall be understood to mean either the Chief Engineer of the Sanitary District of Chicago, or the duly designated representative of the Sanitary District.

Wherever the word "Contractor" is used herein it shall be understood to mean the person or persons or co-partnership or corporation entering into the contract as party of the second part.

The following ordinance, passed by the Board of Trustees of the Sanitary District of Chicago, June 23, 1897, is hereby made a part of this contract, and the party of the second part agrees to comply with its provisions, and in case of violation thereof to be subject to the penalties therein authorized to be imposed:

*"Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

"Section 1.—That in the preparation of all future specifications for contracts for the construction of the Main Channel and auxiliary works, the Engineering Department shall provide that such contracts shall be executed in conformance with the law constituting eight (8) hours a legal day's work in all contracts under the Sanitary District of Chicago, and that, in the employment of labor, contractors shall be required, and specifically agree to give preference to Union labor.

"Section 2.—That all contracts hereafter executed for the works of the Sanitary District of Chicago shall contain provisions constituting eight (8) hours a legal day's work, and forbidding the employment of any employe or employes for a longer period than eight (8) hours in any twenty-four (24) hours, and that said contract shall vest specific authority in the Police Department of the Sanitary District of Chicago to exercise supervision for the enforcement of this provision, and shall provide that the Board of Trustees of the Sanitary District of Chicago shall be empowered, in all cases of violation of said eight (8) hour law, to deduct and retain from any money accruing to said contractors a sum as liquidated damages at the rate of five dollars (\$5.00) per hour for each employe who shall be required to work in excess of eight (8) hours per day by any contractor on said Canal."

## SUPERSTRUCTURE.

## GENERAL.

*Work Included.*

1. The work included under the contract for the superstructure consists in furnishing all materials and labor, and erecting, complete in place, ready for operation, the superstructure, operating machinery, air compressors, air cylinders, piping, receivers, locks, electrical equipment, river and highway signals, houses, stairs, etc., wooden floor, sidewalks, gas-pipe railings, with the necessary spikes, bolts and washers, and the furnishing of all anchor rods and I beams; in fact all iron or steel to be set in structure, including all templates for setting same, and it shall be furnished by the contractor at the site and at such time as may be required by the progress of the work of the substructure contractor. The contract for the superstructure, in fact, includes everything not included in the substructure contract to put the bridge in complete working order, except the motive power, which will be electricity furnished at the switch-boards in the operators' houses. The removal of the old bridge is included in the contract work on the substructure.

*Specifications.*

2. The accompanying plans form a part of the specifications, and, in the event of any discrepancy between the plans and these specifications, the judgment of the Engineer shall be decisive thereon. The figured dimensions on the drawings are to be taken whenever they do not agree with the dimensions obtained by scaling from the drawings.

*Plans and Specifications.*

3. The General Specifications for Steel Highway Bridges and Viaducts, by Theodore Cooper, 1896 Edition, shall govern in regard to quality of material, proportion of parts, general details of construction, workmanship, painting, erection and inspection, and all other respects, except in the changes and additions herein specified.

4. The accompanying plans form a part of the specifications, and, in the event of any discrepancy between the plans and these specifications, the judgment of the Engineer shall be decisive thereon. The figured dimensions on the drawings are to be taken whenever they do not agree with the dimensions obtained by scaling from the drawings.

*Detail Plans.*

5. All detail and shop plans required shall be made at the expense of the contractor, and shall be submitted to the Engineer for approval before beginning work. Such detail plans shall have a uniform size of twenty-six (26) inches by forty (40) inches, inside border lines, with a border margin of one-half (1/2) inch. When submitted for approval, three (3) complete set of prints of such detail plans shall be sent to the Sanitary District of Chicago. The contractor shall furnish the Sanitary District of Chicago with six (6) complete sets of these ap-

proved plans, free of cost. No alterations of approved plans will be made by the contractor without the written consent of the Engineer. The approval of the Engineer will not relieve the contractor from the responsibility of errors thereon.

*Approval of Plans, Etc.*

6. All detail and shop plans before accepted by the Engineer must meet the approval of Page & Shnablen, who shall also have authority to inspect the erection of work.

*Checking Plans.*

7. All of the accompanying plans shall be carefully checked by the contractor before beginning work. Should any errors be discovered, the Engineer's attention shall be called to the same and corrections made, after which the contractor shall be responsible for all errors which may occur or which may have occurred.

*Wrought Iron.*

8. All wrought iron used shall have an ultimate tensile strength of not less than 48,000 pounds per square inch, an elastic limit of at least 26,000 pounds per square inch, and an elongation of at least 20 per cent in eight inches, and be so ductile that, when bent cold through 180 degrees and hammered down flat on itself, it shall show no signs of fracture on convex side of curve.

*Steel.*

9. All steel shall be uniform in quality and made by the "Open Hearth" process.

*Structural Steel.*

10. All structural steel shall be medium steel, uniform in quality, and shall be made by the "Open Hearth" process. Tests shall be made upon pieces cut from the finished material, and shall be not less than one-half square (1/2) inch in sectional area. Two pieces, one for tensile test and one for bending test, shall be furnished for each blow or cast, and so selected that each heat or furnace full of billets, blooms or slabs shall be represented by at least one test to prove the condition of the metal after reheating, rolling, etc. When tested in specimens as above, medium steel shall have an ultimate tensile strength of from sixty thousand (60,000) pounds to sixty-eight thousand (68,000) pounds per square inch, an elastic limit of not less than thirty-six thousand (36,000) pounds per square inch, shall elongate not less twenty-five (25) per cent in eight (8) inches, and show a reduction of area at point of fracture of not less than forty (40) per cent. The test piece must also bend cold one hundred and eighty degrees (180°) around a curve whose diameter is equal to the thickness of the piece, without crack or flaw on convex side of bend. A hole punched for a three-quarter (3/4) inch rivet, one and one-half (1 1/2) inches from the edge of the plate, shall be capable of being enlarged by drifting to one and one-eighth (1 1/8) inches in diameter, without sign of fracture.

*Rivet Steel.*

11. Rivet steel shall have an ultimate

strength of fifty thousand (50,000) to fifty-eight thousand (58,000) pounds, and an elastic limit of not less than fifty-five (55) per cent of the ultimate; an elongation of not less than twenty-seven (27) per cent in eight (8) inches, and must bend one hundred and eighty degrees (180°) flat on itself without sign of fracture on convex side of bend.

#### *Hand Riveting.*

12. All rivets, whether shop or field, shall be of the best quality of rivet steel, as specified. Specimens taken from all grades of steel, after being heated to a light cherry red (as seen in the dark) and quenched in water of eighty-two degrees (82°) Fahrenheit, must conform to the bending requirements above.

#### *Chemical Analysis.*

13. The chemical analysis for carbon and phosphorus of each blow or cast must be furnished to the Engineer or his inspectors before any of the material rolled from said blow or cast is shipped from the mill. Phosphorus must not exceed .06 per cent for acid steel, or .04 per cent for basic steel.

#### *Chippings and Alterations.*

14. All blooms, billets or slabs shall be examined for surface defects, flaws or blow holes before being rolled into the finished sections, and such chippings and alterations made as will secure perfect solidity in the finished sections.

#### *Marking.*

15. The original blow or cast number must be painted or stamped on all blooms, billets or slabs in order to identify the material throughout the various processes of manufacture; and the original blow or cast number, together with the furnace heat number, must be stamped on each piece of finished material from said blow or heat.

#### *Finish.*

16. All finished rolled material must present a smooth, clean surface, free from buckles, flaws, cracked, ragged edges or any other defects, and must be straight throughout and true to section.

#### *Brittle Steel.*

17. No steel which proves brittle shall be used under any circumstances; if it develops this character at any stage of its manufacture it shall be at once condemned and other material used. The object of the more particular clauses, hereto relating, being to guard against the possibility of the use of this class of metal.

#### *Steel Castings.*

18. All steel castings shall have an ultimate strength of not less than sixty-two thousand five hundred (62,500) pounds per square inch, an elastic limit of not less than thirty-two thousand (32,000) pounds per square inch, shall elongate not less than twenty-five (25) per cent in two (2) inches, and show a reduction at point of

fracture of not less than thirty (30) per cent. The amount of phosphorus contained shall not exceed .06 per cent. All steel castings shall be sound and free from blow holes and roughness, sponginess, pittings, shrinkage cracks and other cracks, cavities, etc., and shall be thoroughly annealed according to the best practice. Each cast shall be so made that sufficient number of test pieces can be cut as to enable the engineer or his inspectors to satisfy themselves of its quality.

#### *Machinery Steel.*

19. The materials used for shafting and forgings, except where otherwise specified, shall be of "medium" basic or acid "open hearth" steel, of a good finish and uniform quality, in which phosphorus shall not exceed .06 per cent. When tested in specimens of not less than one-half square inch sections, it must show an ultimate strength of sixty thousand (60,000) to sixty-eight thousand (68,000) pounds per square inch, with an elastic limit of at least fifty per cent (50) of the ultimate and an elongation of at least twenty-five per cent (25) in eight (8) inches, and forty per cent (40) reduction in area at point of fracture, and it must bend cold one hundred and eighty (180) degrees over a diameter equal to its thickness without sign of fracture.

#### *Cast Iron.*

20. Cast iron, except counter weight castings, must be the best quality of soft gray iron. The casting must be free from flaws, ragged edges, or any other defects impairing its efficiency or appearance; and bars of a section one (1) inch square, placed four (4) feet six (6) inches between supports, must be strong enough to bear a weight of five hundred (500) pounds placed half way between supports.

#### *Phosphor Bronze.*

21. Phosphor bronze shall be of the best quality for the purpose for which it is to be used. The castings shall contain eighty-eight (88) per cent of copper and twelve (12) per cent of phosphorized tin; the phosphorized tin to contain five (5) per cent of phosphorus. Upon each casting shall be cast suitable test pieces, which, in breaking, must show a good uniform metal, and when broken in testing machine shall show at least thirty-five thousand (35,000) pounds ultimate tensile strength.

#### *Babbitt Metal.*

22. All the babbitt metal used shall have the following composition: Fifty (50) parts tin, one (1) part copper, five (5) parts antimony.

#### *Counter-weight.*

23. The counter-weight blocks shall be of cast iron. They must be smooth and true to dimensions within one and one-quarter (1¼) inch, and free from cracks and blow holes.

#### *Live Load.*

24. The live load used in calculations

shall be Cooper's Specifications for Steel Highway Bridges and Viaducts, 1896 Edition, Class A 1.

#### WORKMANSHIP.

##### *Character of Work.*

25. More than ordinary care must be taken to have all workmanship strictly first class. The bearings for all shafts must be set to a true line, parallel, and the proper distance between centers. No shimmiing will be allowed. All bolt holes for connection to the structure of any part of the work to be done under these specifications must be drilled in the field, unless otherwise specified, and all bolts must be turned to a driving fit. All shafting must be turned, care being taken to leave proper fillets at points where the diameter is reduced. All parts of the machinery shall be so detailed as to be readily removed and replaced by new parts.

##### *Nut Locks.*

26. Positive nut locks for all bolts shall be furnished, subject to the approval of the Engineer.

##### *Gear Wheels.*

27. All gear wheels must be closely bored to fit their axles or shafts, and properly keyed to the same. They shall be of cast steel, as herein specified, and one duplicate of each different gear shall be furnished by the contractor, if ordered by the Engineer, at the price per pound named in the bids. All gears are to be molded from patterns and such patterns will become the property of the Sanitary District as herein specified.

##### *Irregularities.*

28. Any irregularities that may occur in the teeth of the gear or rack castings must be chipped to template.

##### *Bearings.*

29. All bearings, unless otherwise shown on the plans, shall be babbitted.

##### *Oil Cups.*

30. Proper provision must be made for oiling all bearings, using oil cups approved by the Engineer.

##### *Wrenches.*

31. Suitable wrenches to fit the nuts of all bolts shall be furnished by the contractor without extra charge.

##### *Brakes.*

32. Each leaf of the bridge shall be provided with a band brake, located and attached as shown on machinery detail sheet, the wheels of which shall be made of cast iron, the face to be turned. The bands shall be of steel lined with vulcanized fiber and operated by compressed air, the cylinders to be cast iron and located as shown on drawings and controlled by valves in the operators' houses.

##### *Locks.*

33. For each leaf of the bridge there

shall be two tall locks operated by air cylinders, and there shall be center locks operated by air cylinders placed on that leaf of the bridge on the side of the river having the two controllers as specified for electrical equipment. The air cylinders shall be of cast iron and located as shown on drawings and controlled by valves in the operators' houses.

##### *Air Compressor.*

34. There shall be furnished two air compressors operated by electric motors, approval by the engineer, each compressor to have capacity to work all the locks, brakes and signals of both leaves of the bridge. These compressors shall be placed one in each operator's house and provided with indicators which will show the pressure in cylinders.

##### *Receivers.*

35. On each side of the bridge beneath the floor of the approach spans shall be securely hung a galvanized steel tank having a capacity of forty cubic feet tested to 150 pounds pressure per square inch and capable of carrying a working pressure of sixty pounds per square inch. These receivers are to be connected by a pipe passing beneath the river as specified for piping, and each receiver is to be connected to the compressor on the same side of the river.

##### *Piping.*

36. All piping for the compressed air system, except where otherwise specified, to be standard wrought iron pipe with malleable iron fittings, and no pipe less than one-half inch in diameter shall be used, except for air gauges. All piping must be so placed that it will readily drain itself of water due to condensation. Where piping passes from the fixed to the movable portion of the bridge, wire wound steam hose shall be used, testing to not less than 200 pounds per square inch. There shall be provided and set in each operator's house a suitable gauge, subject to approval of the engineer, piped directly to the receiver on the same side of the river. The pipe connecting the compressors and receivers shall not be less than one (1) inch in diameter. There shall be provided and set a one (1) inch "Strong" lead pipe passing under and across the river at a uniform depth of thirty-two feet below Chicago city datum and connecting the two air receivers hereinbefore specified. All valves and gauges in the operators' houses must be suitably named and labeled, as directed, indicating their office. The Warrington combination valve shall be used for operating the locks, signals and brakes herein specified.

#### ELECTRICAL EQUIPMENT.

##### *Motors.*

37. Each leaf of the bridge shall be operated by an electric motor, located and attached as shown on machinery detail sheet. These motors shall be of the railway type, series wound, single reduction, multi-polar, water-proof, with steel frame and iron clad armature; each to have a capacity of fifty (50) horse power as shown on machinery detail, at normal

speed and five hundred (500) volts, and to be capable of carrying an overload of thirty-three and one-third per cent (33 1-3) for thirty (30) minutes or fifty per cent (50) for five (5) minutes, without injurious heating. The armature speed to be not more than six hundred (600) revolutions per minute, when the horse power hereinbefore specified is being delivered by the motor at five hundred (500) volts. With each motor shall be furnished a cut pinion and gear, with a standard reduction of 1:4.78 and protected by a removable gear case. The contractor shall furnish one extra armature, field coil, pinion and split gear, the same to be duplicates of those furnished with the motors.

#### *Indicators.*

38. Indicators must be provided which will show the position of each leaf of the bridge during operation to the operator on each side of the river, day and night.

#### *Controllers.*

39. There shall be placed one controller in each operating house to govern the main operating bridge motors, of the reversible type, fitted with a device for blowing out, and shall be capable of varying and maintaining the speed of the motors from slow speed at the starting point to a maximum speed when full on, without sparking and without shock or jar. It shall be of ample carrying capacity to transmit for one-half (1/2) hour, without injurious heating, thirty-three and one-third per cent (33 1-3) above the normal amount required by the motor at full load, or transmit for five (5) minutes fifty per cent (50) above the normal amount required by the motors. An additional controller, fulfilling the same requirements, shall be provided and placed in the operator's house on the side of the river designated by the Engineer, and so connected by submarine cables, switches, etc., as to be able to control the leaf of the bridge on the opposite side of the river. Two starting boxes for the compressor motors shall be provided and placed on the switchboard, one in each operator's house.

#### *Wiring and Cables.*

40. All wiring from the end of the supply wire on the switchboard in the operators' houses on each side of the river shall be furnished by the contractor. All wiring between the switchboards, motors, signals and lights, except the wiring within the operating houses, shall be lead covered, with rubber insulation, and run in iron conduits. Between the switchboards in the operators' houses shall be furnished and laid, thirty-two (32) feet below Chicago datum, iron armored submarine cables of sufficient insulation and capacity to carry safely the necessary current in strength and frequency to perform the various operations of the motors, as designated above. All of this work to be subject to the approval of the Engineer.

#### *Lights.*

41. In the operators' houses, on each side of the river, shall be placed five (5) 16-candle power lights, and ten (10) addi-

tional lights with water-proof sockets shall be placed on each side of the river about the machinery at such points as will be designated by the Engineer.

#### *Cut-Outs.*

42. An automatic circuit breaker shall be placed between each feeder and the switchboard. Each submarine cable, each line to motors, and each lighting circuit shall be protected by suitable cut-outs, adapted to five hundred (500) volts and the load of the motor.

#### *Switches and Boards.*

43. Suitable switches shall be provided for each motor circuit and for each supply wire. The switches to be of ample carrying capacity for their respective loads, and to be mounted on a suitable switchboard, which shall be placed in a convenient position in each operator's house.

#### *General.*

44. All switches, cut-outs and buttons shall be suitably named and labeled, as directed, indicating their office. A voltmeter, equal to the Weston in quality, shall be placed in each operator's house on the switchboard. The contractor shall also provide and place on each switchboard one ammeter, reading to two hundred (200) amperes, and one fifty thousand (50,000) ohm magneto testing bell.

#### *Operators' Houses, Stairways, Etc.*

45. On each side of the river, located as shown on the drawings, shall be built and secured in place an operator's house, to be of such general dimensions and appearance as shown on the detail sheet of operators' houses. Stairways and walks of steel, from the machinery to the bridge floor, and a galvanized iron house to protect the machinery and electrical equipment from the weather, shall be provided and placed, subject to the approval of the Engineer.

#### *Heating.*

46. Two coal stoves with suitable cast iron pipes and chimneys shall be furnished and set in each operating house, subject to the approval of the engineer.

#### *Railings.*

47. Railings shall be made of gas pipe, of such size and design as shown on the detail drawings furnished herewith.

#### *Signal.*

48. At the extremity of both river arms on each of the posts supporting the cross struts for carrying the trolley wires shall be secured suitable brackets upon which shall be mounted a signal stand, showing targets by day and red and green lights by night, the red lights to show to the river and the green lights to the roadway when the bridge is closed, and the reverse when the bridge is open. These are to be operated by compressed air device and controlled by valves in the operators' houses. Two complete sets of 32 candle-power lamps shall be placed in each lan-

tern, the wiring being such that in case of the failure of one circuit the other may be thrown in by the operator.

49. In each operator's house shall be placed a telephone, complete, with receiver, transmitter, battery and magneto bell, connected by cable beneath the river. Upon the operator's house in which are placed the two controllers shall be placed a one hundred and ten (110) pound Meneeley bell (Troy, N. Y.), to be properly hung, with cord leading to suitable points inside of the operator's house.

#### *Roadway Paving.*

50. The roadway floor of the bridge shall consist of two courses of planking; the first course to be surfaced on one side to a uniform thickness of three and one-half inches ( $3\frac{1}{2}$ ) and to be from six to ten inches (6 to 10) wide, laid three-quarter inch ( $\frac{3}{4}$ ) apart, at right angles to and well fastened to the stringers. The top course shall be white oak surfaced on one side to uniform thickness of two and three-quarter inches ( $2\frac{3}{4}$ ), laid at right angles to the line of the bridge and well spiked to the lower course. The oak plank to be from six to ten inches (6 to 10) wide, well seasoned and dry, and free from knots and other defects. All pine must be long leaf southern yellow heart pine, good quality, sound, free from sap, wind shakes, and large or loose knots. East plank must be fastened to each stringer by two three and one-half inch by three-eighths inch ( $3\frac{1}{2} \times \frac{3}{8}$ ) railroad spikes driven from under side of floor.

#### *Sidewalks.*

51. The sidewalk planking shall consist of good quality pine, as above specified, surfaced on the upper side and edges. Planks to be six inches (6) wide, to be laid at right angles to bridge, with one quarter inch ( $\frac{1}{4}$ ) open joints. Planks are to be well spiked to wood strips on stringers.

#### *Wheel Guard.*

52. The wheel guard shown on plans to run the entire length of bridge, including approaches, and surfaced one side and one edge to true size.

#### *Patterns.*

53. All patterns for castings shall be the property of the Sanitary District, and shall be delivered by the contractor where directed by the Engineer.

#### *Extra Inspections.*

54. Should the preparation of the material for this structure be widely distributed, or should unnecessary delays in getting out the same, or delay in the required date of final completion occur, the cost of extra inspection shall be borne by the contractor; the Engineer to be sole judge of what is to be deemed extra inspection.

#### *Maintenance.*

55. The contractor will be required to maintain the superstructure work for a period of twelve (12) months after the same shall have been completed to the

satisfaction of the Engineer, keeping the same in perfect repair during that time against all damages of wear and tear due to imperfect material or faulty workmanship which may be discovered under the legitimate use or operation of the bridge. He shall be required to execute a bond in the sum of \$15,000 for the faithful performance of this before receiving a final payment of his contract.

#### *Duplicate Castings.*

56. The contractor must furnish such duplicates of the finished castings as directed by the Engineer, at the price per pound named in the bids.

#### *Painting.*

57. All of the structural metal work before leaving the shop shall receive one good coat of paint of quality hereinafter specified, well rubbed in. In the riveted work, the surfaces coming in contact shall be painted with two coats of paint as above. Bottom of bed plates, bearing plates and any parts not accessible for painting after erection shall have two coats of paint as above. After the structures are erected, the metal work shall be thoroughly and evenly painted with two additional coats of paint of quality as herein specified. The paint must be delivered at the bridge site at least ten (10) days in advance of the time it is to be used, and samples must be submitted to the Engineer for approval as to quality and color. No painting will be permitted to be done in wet or freezing weather. In case any paint is washed or scraped off before becoming dry, the work must be repainted to the satisfaction of the Engineer, and at the contractor's expense. All turned or planed surfaces must receive a coat of white lead and tallow before leaving the works.

#### *Paint.*

58. The paint to be used as first or shop coat shall be the highest grade of red oxide of iron paint, the pigment to contain at least forty (40) per cent sesquioxide of iron and be mixed with best boiled linseed oil and turpentine japan dryer. No benzine will be allowed in the paint.

59. The paint for the second and third coats shall be the same as the first coat with the addition of one (1) ounce of best Germantown lamp black to each gallon of paint for the second coat and one and one-half ( $1\frac{1}{2}$ ) ounces of the same lamp black to each gallon of paint for the third coat, to be thoroughly stirred in by machinery.

#### *Camber.*

60. A written statement and guarantee of the composition of the paint shall be given the Engineer by the manufacturer furnishing the paint.

61. The trusses of the bridge shall be so constructed as to give a slight camber to the floor, under the full live load.

#### *Name Plates.*

62. Four name plates shall be furnished by the contractor, to be inscribed and



placed on the structure as directed by the Engineer.

#### *Shipping.*

63. All parts shall be carefully loaded so as to avoid injury in transportation, and shall be at the contractor's risk until erected and ready for traffic. All screw ends shall be wrapped with twine before shipment. All pins and small parts must be securely boxed and the boxes plainly marked. The weights of large pieces must be marked on them. The invoices shall state the contents of each box and the weight and description of each piece that is not boxed, and three copies of each invoice shall be furnished the Sanitary District of Chicago. The above weights shall be the actual, not estimated, weights.

#### *Erection.*

64. The contractor shall furnish all staging and false work, shall erect and adjust all the metal work except metal work in substructure as herein specified, shall furnish and put in place all floor timbers and timber guards. The contractor shall assume all risks of accidents to men or material prior to the acceptance of the finished structure. The contractor must also remove all false work, piling and other obstructions, or unsightly material produced by his operations. The contractor shall furnish all templates for setting metal work in substructure and in proper time for erection of such work.

#### *Final Acceptance.*

65. Any material or workmanship which does not satisfy the requirements of these specifications may be rejected by the Engineer at any time before the final acceptance of the work, and the contractor shall make good all deficiencies at his own cost. The fact that the authorized inspectors have inspected said material or workmanship shall not make the Sanitary District liable for extra cost above that specified in the contract for replacing the same with material or workmanship accepted by the Engineer on the final acceptance.

#### *GENERAL CONDITIONS.*

66. The drawings furnished form a part of these specifications, and any work shown therein shall be executed the same as if mentioned herein. The work is to be made complete and to the satisfaction of the Engineer, notwithstanding any omissions in plans or specifications.

#### *Changes in Plans.*

67. The quantity of work and material figured from the plans is approximate, and the Sanitary District reserves the right to make any changes in the plans or specifications, which may be deemed necessary, either before or after beginning the construction thereof; provided, that if alterations are made, the general character of the work as a whole is not changed thereby. If such alterations diminish the quantity of work to be done, they shall not constitute a claim for damages nor for anticipated profits on the work that may be dispensed with; if they

increase the amount of work, such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract. Notice of change of plan must be given to the contractor in writing, and it is expressly agreed that no alterations or additions or extra work are to be paid for, unless so directed in writing.

#### *Extra Work.*

68. All claims for extra labor or material furnished by the contractor, or for damages from any cause whatever, must be reported to the Engineer at the time such labor or material is furnished or such damages occur, and they must also be presented to him in writing at the end of the month; provided that nothing shall be paid for as extra work that can be classified under any of the heads upon which prices are fixed by this contract. Whenever work is required to be done, which is not now contemplated or covered by the prices hereinafter given, the Committee on Engineering shall fix such prices for the work as they shall consider just and equitable, and the contractor shall abide by such prices, provided he enters upon such work with a full knowledge of the prices so fixed by the said Committee; but if the contractor declines executing said work at the prices fixed by said Committee, then the Sanitary District may enter into contract with any person or persons for its execution the same as if this contract had never existed; and if extra work or work not provided for in this contract is performed by the contractor before prices have been fixed for such work, then the Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said contractor shall accept such prices in full satisfaction of all the demands against the Sanitary District for said extra work; provided that, if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work, with fifteen (15) per cent added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

#### *Responsibility of Contractor.*

69. It is further agreed that in all cases of question or dispute arising or growing out of this contract in any way regarding the cost or value of extras, variations, allowances, deductions, or the amount of damages in any manner growing out of the violation of this contract, the decision of the Engineer shall be final and binding on both parties hereto. All work provided for in this contract is to be done under the direction and supervision of the Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without ex-

tra charge therefor, to enable the Engineer to properly give lines and grades and measure the work from time to time.

70. All materials of whatever kind to be used in the work will be subject to the inspection and approval of the Engineer. All unsuitable or rejected materials must be removed from the premises at once by the contractor.

71. All work shall be subject to constant inspection before acceptance. Any unfaithful or imperfect work that may be discovered before its final acceptance shall be corrected immediately, and any unsatisfactory material used in the work shall be rejected and removed on the requirement of the Engineer, notwithstanding they may have been overlooked by the Inspector and estimated. The inspection of any work shall not relieve the contractor of any of his obligations to perform sound work, as herein specified, and all work which, during its progress and before its final acceptance, may become damaged from any cause, shall be removed and replaced by good and satisfactory work.

72. The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to sublet all or any part of it; it being distinctly understood and agreed that the subletting of the work covered by this contract, or any part thereof, shall, after thirty (30) days' notice, work a forfeiture of the contract at the option of the Sanitary District.

73. During all periods of construction the contractor shall uninterruptedly keep open for navigation a channel of sufficient width in the river to permit continuous traffic on the same.

74. The contractor shall conform to all the ordinances of the City of Chicago and the regulations imposed by the United States Government in any manner affecting this work and he will release the Sanitary District of Chicago from all responsibility for loss or damage occasioned by delays or inconveniences due to the navigation of the river by vessels of any sort or description or for other causes not now foreseen. He shall also be responsible for and make good all damages to adjoining property which may be occasioned by him or his work in the execution of this contract.

75. The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case the contractor fails to comply with the provisions of this contract as to progress and character of work, he shall be duly notified in writing, and thirty (30) days after the giving of said notice the Sanitary District may declare this contract forfeited, if there is a substantial failure to comply with its provisions.

#### *Tools.*

76. The contractor is to furnish all the

tools of every description, including pumps, cars and tracks, boats, barges and tugs necessary to the full and complete carrying out of this contract, and on completion of the work is to remove all tools, building and materials of all kinds from the site of the bridge.

#### *Precautions.*

77. Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, shall be taken by the contractor.

#### *Workmen.*

78. The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work will be employed where special skill is required, and in the employment of men preference shall be given to union laborers. It is especially understood and agreed that eight (8) hours shall constitute a day's work, and that no workman shall be employed or required to work more than eight (8) hours out of any twenty-four (24) hours, and no work in excess of that time shall be allowed. In the event of any violation of the above eight (8) hour provision, it is agreed hereby that the said District shall, and that it is duly authorized to retain from any money due, or to become due, at any time from it to the contractor, as liquidated damages, the sum of five dollars (\$5) per hour for each hour that any employe shall be required to work in excess of eight (8) hours per day, pursuant to the terms and conditions of the ordinance adopted June 23d, 1897, attached hereto.

#### *Patents.*

79. It is further agreed that the contractor shall indemnify, keep and save harmless said Sanitary District from all liabilities, judgments, costs, damages and expenses which may in anywise come against said Sanitary District, or which may result on account of any infringement of any patent by means of the use of any materials, machinery, device or apparatus used in the performance of this contract, or of designs furnished by the contractor and accepted by the Sanitary District, except the patents on a bridge design of the Page type controlled by Page & Shnoble, and in the event of any claim or suit or action at law or equity of any kind whatsoever being made or brought against said Sanitary District, then the Sanitary District shall have the right to retain a sufficient amount of money in the same manner and upon the same conditions as hereinafter in the next following clause of this contract provided.

#### *Damages.*

80. If any damage shall be done by the contractor or by any person or persons in his employ to the owner or occupants of land, or to any property adjoining or in the vicinity of the work herein contract-

ed to be done, or to a neighboring contractor, the Engineer shall have the right to estimate the amount of said damage, and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for said damages shall be deducted from the money due said contractor, under this contract. Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself, or his employee, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for, or on account of, any such injuries, or such damages received or sustained by any person or persons, by or from said contractor, servants, agents or employees, in the execution of said work; or by or in consequence of any negligence in guarding the same; or by or on account of any omission or act of said contractor, his agents or employees; and the said contractor further agrees that so much of the money due to him under and by virtue of this contract as shall be considered necessary by the Board of Trustees of the Sanitary District may be retained by the said Sanitary District until such suit or claim for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

#### *Time.*

81. The contractor agrees to begin the work covered by this contract within fifteen (15) days after said contract shall have been executed, and to prosecute the building of the structure herein provided for so as to complete the same on or before the first day of January, 1902.

#### *Penalty.*

82. The contractor hereby agrees to forfeit as liquidated damages for any non-compliance with, or fulfillment of the provisions of this contract within the time specified fifty dollars (\$50) per day for each day beyond January 1, 1902, within which the work hereby provided is to be completed, time being an essential part of this contract.

83. In case the substructure is not completed and ready to receive the superstructure by October 1, 1901, an extension of time will be granted for the completion of the superstructure equivalent to the time required beyond October 1, 1901, for the completion of the substructure.

#### *Prices.*

84. In consideration of the said work being carried on and completed in the time and manner as hereinbefore specified, the said Sanitary District agrees to pay to the said contractor for the superstructure the following amounts, and the said contractor agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit:

(a). For the superstructure, furnished and erected complete, including operating machinery, locks, signals, electrical equip-

ment, pumps with motors, houses, etc., for operating this bridge, as specified, and to furnish all iron and steel in the substructure at the site of the bridge, the sum of ninety-one thousand two hundred dollars (\$91,200).

(b). For extra medium or soft steel, erected in place, the sum of four and one-half (4½) cents per pound.

(c). For extra iron castings, erected in place, the sum of eight (8) cents per pound.

(d). For extra steel castings and all other steel for machinery, erected in place, the sum of ten (10) cents per pound.

(e). For extra phosphor bronze, erected in place, the sum of fifty (50) cents per pound.

(f). For extra counter-weight block castings, erected in place, the sum of two (2) cents per pound.

(g). For extra yellow pine or oak put in place as specified, per one thousand (1,000) feet, B. M., the sum of forty dollars (\$40).

The prices proposed must include all royalties for patents, or patented material or appliances used in the construction of the work described in the specifications and agreements; and before final payment is made, the contractor shall furnish a satisfactory guarantee against all claims; provided, however, this does not apply to the patented design of the Page Bascule Lift Bridge, the right to use the same having been purchased by the Sanitary District.

#### *Time and Manner of Payment.*

85. It is agreed by the party of the first part that on or before the 10th day of each month during the progress of the work and subject to the provisions hereinbefore specified under the head of "time," payment will be made to the said party of the second part to the amount of sixty (60) per cent of the value, as estimated by the Engineer, of the structural metal delivered under this contract, upon written certificate from the Engineer that such amount of material has been delivered during that period at the site of the bridge; forty (40) per cent being reserved until the completion and acceptance of the work by the party of the first part. The said forty (40) per cent to be paid upon the written certificate of the engineer within thirty days after said acceptance.

86. Upon the completion of the superstructure in accordance with the specifications and contract, to the full satisfaction of the Engineer, and upon the inspection of same and the issuance of the final certificate by the Engineer, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to the said party of the second part by the said certificate of the said Engineer.

#### *Failure to Complete.*

87. It is further agreed by the said party of the second part that, if the work to be done under this contract on the superstructure shall be abandoned, or if it shall be assigned by him, or if he loses

control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or if at any time the Engineer shall be of the opinion and shall so certify in writing to the said party of the first part that said work, or any part thereof, is unnecessarily and unreasonably delayed, or that the contractor is willfully and persistently violating any of the conditions or covenants of this contract, or is not fulfilling said contract in good faith, the said party of the first part shall have the power to notify the said contractor to discontinue all work, or any part thereof, as may be designated by the said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams and to obtain such machinery, implements and tools and to purchase such material as the said Engineer may deem necessary to complete the work herein described, or any part thereof. And, in so doing, said Engineer may use such tools, implements and materials as may be found upon the line of work. The cost of doing such work by said Engineer shall be charged to the said contractor, and the expense so charged shall be deducted and paid by the said party of the first part out of such moneys as may be due, or may at any time thereafter become due to said contractor, under and by virtue of this contract, or any part thereof, so far as the same shall suffice therefor; and the balance, if any, shall be paid by said contractor on demand. Should there be a failure by the second party to deliver said material of the character and strength herein provided for at the time herein specified, or if, after delivery of same as herein provided, said contractor should fall financially, either before or after having been paid the sixty (60) per cent of the contract price as hereinbefore provided, and be unable to carry out said contract and complete said work, then, in that case, the said party of the first part shall have the power to complete said work by contract or otherwise, at its discretion, and charge up the cost of so completing the said work to said contractor. Should the amount remaining unpaid of the contract price not suffice therefor, then said contractor and his bondsmen shall be held liable for the deficiency. If at any time during the progress of said work, the said contractor shall fail or neglect to pay for labor performed or material furnished upon said work for ten (10) days after it shall have become due, then the party of the first part shall have power to pay for such labor or for materials, tools, machinery, appliances, fuel, provisions or supplies of any sort or kind used or consumed in, upon or on account of the work covered by this contract; the party of the first part shall have the power to pay for such labor or materials, machinery, appliances, fuel, provisions or supplies of whatsoever sort or kind, out of moneys that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor. In any such case the party of the first part is hereby authorized and empowered by the party of the second part to ascertain by its engineer the

amounts due or owing from said contractor to any laborer or laborers, or to any person or persons, for materials, tools, machinery, appliances, fuel, provisions or supplies of any sort or kind consumed upon, in or on account of the work covered by this contract in such manner and upon such proofs as the said Engineer may deem sufficient.

#### *Contractors' Bond.*

38. The contractor shall furnish bond in the sum of thirty-five thousand (\$35,000) dollars for the superstructure of this bridge, with good and sufficient sureties the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned upon the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of the said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may on giving ten (10) days' notice thereof in writing, require said contractor to furnish a new and additional bond in place of the bond so having become insufficient or worthless.

#### *Final Payment.*

39. The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until all of the stipulations hereinbefore mentioned are complied with, and the said Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole, or any portion of the aforesaid work, should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

In witness whereof, on the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set its hand and seal.

THE SANITARY DISTRICT OF CHICAGO,

By WM. H. BAKER,

*Vice-President.*

Attest:

A. R. PORTER.

(SEAL)

*Clerk.*

(SEAL)

MASSILLON BRIDGE CO.,

By A. J. SPRAGUE,

*President.*

(SEAL)

W. C. JACOBS,

*Secretary.*

## SUBSTRUCTURE FOR ASHLAND AVENUE BRIDGE.

### "SANITARY DISTRICT OF CHICAGO.

Contract and specifications for the Substructure of a Highway Rolling Lift Bridge of the Page type, crossing the South Branch of the Chicago River in the City of Chicago, to be built for the Sanitary District of Chicago.

*This Agreement*, Made and entered into this 4th day of February A. D. 1901, by and between the Sanitary District of Chicago, of the first part, and J. W. Page and E. R. Shnable, copartners doing business under the firm name and style of Page & Shnable of the City of Chicago, in the State of Illinois, of the second part.

A—

*Witnesseth*, That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the Page Bascule Lift Bridge for the Sanitary District, Chicago, crossing the South Branch of the Chicago river at Ashland avenue, in the City of Chicago.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer or other designated representative of the Sanitary District of Chicago, and his properly authorized agents, and by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer or other designated representative shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein expressed; and the Chief Engineer or other designated representative of the Sanitary District in charge of said work shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Wherever the words "Sanitary District" are used in this contract, they shall be understood to mean, the Sanitary District of Chicago, as represented by the Board

of Trustees of the Sanitary District or their duly authorized and accredited agents.

Whenever the word "Engineer" is used herein, it shall be understood to mean either the Chief Engineer of the Sanitary District of Chicago, or the duly designated representative of the Sanitary District.

Wherever the word "Contractor" is used herein it shall be understood to mean the person or persons or co-partnership or corporation entering into the contract as party of the second part.

The following ordinance, passed by the Board of Trustees of the Sanitary District of Chicago, June 23, 1897, is hereby made a part of this contract, and the party of the second part agrees to comply with its provisions, and in case of violation thereof to be subject to the penalties therein authorized to be imposed:

*"Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

"Section 1.—That in the preparation of all future specifications for contracts for the construction of the Main Channel and auxiliary works, the Engineering Department shall provide that such contracts shall be executed in conformance with the law constituting eight (8) hours a legal day's work in all contracts under the Sanitary District of Chicago, and that, in the employment of labor, contractors shall be required and specifically agree to give preference to Union labor.

"Section 2.—That all contracts hereafter executed for the works of the Sanitary District of Chicago shall contain provisions constituting eight (8) hours a legal day's work, and forbidding the employment of any employee or employees for a longer period than eight (8) hours in any twenty-four (24) hours, and that said contract shall vest specific authority in the Police Department of the Sanitary District of Chicago to exercise supervision for the enforcement of this provision, and shall provide that the Board of Trustees of the Sanitary District of Chicago shall be empowered, in all cases of violation of said eight (8) hour law, to deduct and retain from any money accruing to said contractors a sum as liquidated damages at the rate of five dollars (\$5.00) per hour for each employee who shall be required to work in excess of eight (8) hours per day by any contractor on said Canal."

## SUBSTRUCTURE.

### GENERAL.

#### *Work Included.*

1. The work included under the contract for the substructure consists in removing from the site all of the superstructure, the abutments, piers, foundation piles and fenders of the old bridge, and such a part of the present dock and approach as is necessary for the completion of the new bridge, and furnish all labor and materials, except the steel or iron, and erecting, complete in place, the substructure as hereinafter specified and detailed on masonry sheet herewith, refilling such a part of the dock removed as directed by the

Engineer, and the dredging of the channel of the river as hereinafter specified. And extending sewer as shown on drawings and hereinafter specified. All steel or iron in the substructure, together with paint for same, will be furnished by the contractor for the superstructure, but the contractor for the substructure shall erect and paint such steel or iron in the field, as specified.

#### *Materials in the Old Bridge.*

2. All of the old piles shall be pulled out. Such white oak or burr oak piles as are found after pulling to be in good condition and the requisite size and length may be used in the new work. The superstructure of the old bridge and all of the old material in the substructure removed and unfit for use in the new work shall become the property of and must be removed by the contractor, the cost of removing the same to be covered in the price bid for removing old substructure and superstructure as specified.

#### *Plans and Specifications.*

3. The accompanying plans form a part of the specifications, and, in the event of any discrepancy between the plans and these specifications, the judgment of the Engineer shall be decisive thereon. The figured dimensions on the drawings are to be taken whenever they do not agree with the dimensions obtained by scaling from the drawings.

#### *Detail Plans.*

4. All detail plans required shall be made at the expense of the contractor, and shall be submitted to the Engineer for approval before beginning work. Such detail plans shall have a uniform size of twenty-six (26) inches by forty (40) inches, inside border lines, with a border margin of one-half ( $\frac{1}{2}$ ) inch. When submitted for approval, three (3) complete set of prints of such detail plans shall be sent to the Sanitary District of Chicago. The contractor shall furnish the Sanitary District of Chicago with six (6) complete sets of these approved plans, free of cost. No alterations of approved plans will be made by the contractor without the written consent of the Engineer. The approval of the Engineer will not relieve the contractor from the responsibility of errors thereon.

#### *Approval of Plans.*

5. All detail plans before accepted by the Engineer must meet the approval of Page & Shnable, who shall also have authority to inspect the erection of work.

#### *Checking Plans.*

6. All of the accompanying plans shall be carefully checked by the contractor before beginning work. Should any errors be discovered, the Engineer's attention shall be called to the same and corrections made, after which the contractor shall be responsible for all errors which may occur or which may have occurred.

#### *QUALITY OF MATERIAL.*

##### *Piles.*

7. All foundation piles, if required, supporting masonry shall be Norway pine,

and all others must be of white or burr oak. They must be sound and straight, not less than fourteen inches (14") at the butt nor less than nine inches (9") at the small end, and of uniform taper. Piles for the piers are to be of such length that they may be driven, if possible, to rest upon the rock at the elevation shown on the plans.

##### *Timber.*

8. All timbers used in docks, anchors, sheeting, wales, fenders, etc., must be sound, straight and free from any defects which might impair its strength or durability, and be of such variety and dimensions as hereinafter specified or shown on drawings.

##### *Broken Stone.*

9. All broken stone for concrete shall be as nearly as possible cubical in shape, free from dirt or other foreign substances, and, if screened, must also be free from flat chips or dust. Stones shall not be larger than two inches (2") in any direction, and in quality subject to the approval of the Engineer.

##### *Cement.*

10. The best Portland cement shall be used on this work, brand and quality to be subject to the approval of the Engineer. The weight per cubic foot of Portland cement shall be not less than one hundred (100) pounds. The development of tensile strength for Portland cement shall be not less than four hundred (400) pounds per square inch, after being exposed one (1) day in air and six (6) days in water. All lumpy, dirty or damaged cement shall be rejected; also damaged or short-weight packages.

##### *Sand.*

11. The sand shall be coarse, sharp and clean, free from all clay, loam or gravel, and of a quality approved by the Engineer.

##### *Brick.*

12. The brick for sewers shall be selected and of first grade of hard sewer brick, equal in quality to requirements of city ordinances.

#### *CLASS OF WORK.*

##### *Excavation.*

13. All foundations shall be prepared to receive the masonry by the contractor, who shall make excavation to such a depth and width sufficient to allow of the construction of the work herein specified. The contractor shall also, where necessary, supply and operate, free of cost, all pumps in order to keep the foundation excavation dry. The contractor shall provide, drive, frame and place all sheet piling or other timber work necessary to the successful excavation and protection of the foundation excavation, and shall maintain the same until masonry shall have been built. Such material excavated as is necessary for filling the approaches shall be deposited as directed by the Engineer within a limit of 400 feet from the site of the excavation; free of all cost

or expense to the Sanitary District of Chicago. All other material excavated from the foundations, except such as shall be needed for filling back of and around the masonry of the new bridge, shall be removed entirely from the bridge site and disposed of as the contractor may see fit, free of all cost or expense to the Sanitary District of Chicago; but none of the material so excavated shall be deposited in any navigable waters, save as permitted by the United States Engineer Department. All refilling ordered by the Engineer shall be done without extra cost to the Sanitary District. The contractor must remove the old docks, sidewalks and roadways, where it is necessary for the completion of the new bridge, and must do all the necessary filling behind the abutment walls and join the new and old work to the satisfaction of the Engineer.

#### *Piles.*

14. All piles must be driven by a steam hammer, unless otherwise directed by the Engineer, and if so directed by the Engineer, a follower shall be used in driving. If, in the opinion of the Engineer any pile proves imperfect or becomes unfit for use under the hammer, or is not driven straight, it must be removed by the contractor without extra cost. If so directed by the Engineer, the piles shall have the bark removed. Should any of the piles raise or change their position after being driven, they shall be re-driven, if so directed by the Engineer, at the expense of the contractor. All piles must be cut level and at proper elevation. Payment for piles must be made on the following basis: 1st. Per lineal foot for all piles delivered on the order of the Engineer, at the site of the work. 2nd: For all piles driven per lineal foot below the cut-off line, the prices designated on the bid.

#### *Sheet Piling.*

15. Sheet piling and bracing may be of any timber suitable for the purpose, and shall be of such dimensions and placed as directed by the Engineer. Cofferdams are to be built around the piers where, in the opinion of the Engineer, it is necessary, sufficiently heavy and strong to permit the excavation for the foundations to a depth of thirty (30) feet below Chicago datum, to be kept dry at all times during construction. Piles for use in cofferdams may be of any timber that will stand the driving and have the necessary strength to stand the strains to which they will be subjected. Such piles will be paid for at the same rate per lineal foot, delivered at the site of the work, as pine piles; and when driven will be paid for at such rate per lineal foot as is paid for "Oak piles driven in protection and docks." Upon the completion of the work, the coffer-dams around the piers are to be removed by the contractor at his own expense.

#### *Concrete.*

16. All concrete used shall consist of one part Portland cement, three parts sand and five parts screened broken stone, bulk measurement. If unscreened broken stone be used, the proportions shall be one part cement, two parts of sand and six parts

of broken stone, and the mass shall be turned over at least 100 times by a mechanical mixer. If the Engineer will permit, the mixing of the concrete with screened broken stone may be done by hand on suitable platforms. The cement and sand shall first be thoroughly mixed dry, after which the stone, properly moistened, shall be added, with sufficient clean water to make the whole mass, when thoroughly mixed, a tenacious and quaking mixture, without surplus of water. The concrete shall be immediately deposited in the work in layers not over six (6) inches thick, each layer to be thoroughly and compactly tamped until the whole mass is perfectly solid and free mortar appears on the surface. No retempering shall be allowed. All loose stone and foreign material lying on the old concrete must be removed before laying any new concrete thereon. All dead concrete must be removed from the work. All tie rods and anchor bolts must be solidly set in mortar of the quality specified. The placing of anchors and other metal work which must be bedded in the concrete is to be covered in the price bid for said concrete.

#### *Mortar.*

17. All mortar used shall be of the cement and sand hereinbefore specified. When used for pointing, plastering or setting anchors it shall consist of equal volumes of cement and sand. These ingredients shall be thoroughly mixed dry, when sufficient clean water shall be added to make a paste of the proper consistency and must be used at once. No mortar shall be used that has set or become stiff, nor shall any retempering be permitted.

#### *Abutments.*

18. There will be two abutments of the dimensions and locations shown on the accompanying plans. They will rest directly upon hard clay, or upon piles, as detailed on the plans herewith. Where piles are used, they shall be driven as specified, and cut level at the elevations shown on the plans. If the ground on which the concrete is to be placed is soft, it shall be made compact by ramming cobble and broken stone in the same until it is solid and firm.

19. The anchorage columns, steel stiffening beams, tie rods, bolsters and anchor bolts shall be located and constructed as shown on the plans. The anchorages shall be held firmly and securely in place, while the concrete and stone work is being built up around them in layers, as specified, to the dimensions and form shown on the plans. The contractor shall make any and all templates which shall be called for by the Engineer, and place the same so as to secure accurate lines for setting any work that may require it. He shall also set any templates furnished by the superstructure contractor, and the cost of this work shall be included in the price to be paid for setting iron and steel in the masonry.

#### *Protection.*

20. The large corner clumps of the protections shall be fifty (50) foot oak piles, securely bound together with five (5) laps of three-fourth (¾) inch chain, spiked

all around with six by one-fourth (6x $\frac{1}{4}$ ) inch wrought iron spikes. The piles in front and flank aprons will be of oak, fifty (50) feet long and spaced as shown. Caps to be twelve by twelve (12x12) inch oak, and wales of eight by twelve (8x12) inch oak, all secured as shown. Any temporary protection piles required shall be put in place and removed at the expense of the contractor.

#### *Refilling.*

21. Upon the completion of the masonry of the retaining walls, the roadways and sidewalks to the full width of wall shall be refilled by the contractor to these retaining walls, finishing the roadway and sidewalks of the approaches ready for traffic and to the satisfaction of the Engineer, without extra compensation. All filling to be done with good material, in layers, carefully tamped and watered to make the same solid and compact.

#### *Docking.*

22. All docking along either bank of the river, wherever disturbed or damaged, shall be reconstructed by the contractor to the satisfaction of the Engineer. The same must butt against the new work in a workmanlike and substantial manner.

#### *Dredging.*

23. Upon the completion of the work the contractor shall, at his own expense, dredge the channel between the docks from the east end of the present center pier protection to the west end of said protection and to a depth of twenty-two and one-half (22 $\frac{1}{2}$ ) below Chicago city datum. No obstruction of any kind shall be left within the above described limits, no matter of what kind or nature. All material of whatever kind, deposited during the progress of the work under this contract, upon adjacent streets or grounds, must, upon completion of the contract, be promptly removed by the contractor at his own expense.

#### *Sewers*

24. The contractor, when making excavation, shall provide proper supports for present sewer, and he shall provide, during construction of piers, a temporary duct to empty into the river. The contractor shall construct permanent sewers extending through abutment as shown on plans, and properly connect same to city work, and such work must conform strictly to the requirements of the city ordinances. This work shall be covered in a lump sum named in the bid.

25. The contractor shall, during construction maintain the present water pipes, sewer and gas mains, or conduits of any kind that may be unearthed by him. This maintenance must be done in a manner satisfactory to the Engineer and to the Commissioner of Public Works of the City of Chicago.

26. No water shall be drawn from the fire hydrants until the necessary permit is procured.

#### *Examining Site.*

27. Prospective bidders for this work are required to carefully examine the ex-

isting structure to inform himself, or themselves, as to the magnitude and nature of the contemplated removals, and also the facilities for the delivery of new material at the site. No plea of ignorance of what is required, as a result of failure to make proper examinations, will in any case be accepted as a sufficient excuse for any failure or omission on the part of the contractor to fulfill in every detail all the requirements of this contract.

#### *Measurements.*

28. Measurements of all masonry shall be by the cubic yard, and all payments shall be made upon the actual cubical contents of the completed masonry within the lines as shown on the plans. Measurements of all materials shall be in accordance with the units of measurements as herein specified.

#### *Erection.*

29. The contractor shall furnish all staging and false work, shall erect and adjust all the metal work in substructure, shall furnish and put in place all templates to accurate lines, timber guards, and set and secure in place all masonry bolts. The contractor shall assume all risks of accidents to men or material prior to the acceptance of the finished structure. The contractor must also remove all false work, piling and other obstructions, or unsightly material produced by his operations.

#### *Final Acceptance*

30. Any material or workmanship which does not satisfy the requirements of these specifications may be rejected by the Engineer at any time before the final acceptance of the work, and the contractor shall make good all deficiencies at his own cost. The fact that the authorized inspectors have inspected said material or workmanship shall not make the Sanitary District liable for extra cost above that specified in the contract for replacing the same with material or workmanship accepted by the Engineer on final acceptance.

#### *General Conditions.*

31. The drawings furnished form a part of these specifications, and any work shown therein shall be executed the same as if mentioned herein. The work is to be made complete and to the satisfaction of the Engineer, notwithstanding any omissions in plans or specifications.

#### *Changes in Plans.*

32. The quantity of work and material figured from the plans is approximate, and the Sanitary District reserves the right to make any changes in the plans or specifications, which may be deemed necessary, either before or after beginning the construction thereof; provided, that if alterations are made, the general character of the work as a whole is not changed thereby. If such alterations diminish the quantity of work to be done, they shall not constitute a claim for damages nor for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall



be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract. Notice of change of plan must be given to the contractor in writing, and it is expressly agreed that no alterations or additions or extra work are to be paid for, unless so directed in writing.

#### *Extra Work.*

33. All claims for extra labor or material furnished by the contractor, or for damages from any cause whatever, must be reported to the Engineer at the time such labor or material is furnished or such damages occur, and they must also be presented to him in writing at the end of the month; providing that nothing shall be paid for as extra work that can be classified under any of the heads upon which prices are fixed by this contract. Whenever work is required to be done, which is not now contemplated or covered by the prices hereinafter given, the Committee on Engineering shall fix such prices for the work as they shall consider just and equitable, and the contractor shall abide by such prices, provided he enters upon such work with a full knowledge of the prices so fixed by the said Committee; but if the contractor declines executing said work at the prices fixed by said Committee, then the Sanitary District may enter into contract with any person or persons for its execution the same as if this contract had never existed; and if extra work or work not provided for in this contract is performed by the contractor before prices have been fixed for such work, then the Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said contractor shall accept such prices in full satisfaction of all the demands against the Sanitary District for said extra work; provided that, if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work with fifteen (15) per cent added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

#### *Responsibility of Contractor.*

34. It is further agreed that in all cases of question or dispute arising or growing out of this contract in any way regarding the cost or value of extras, variations, allowances, deductions, or the amount of damages in any manner growing out of the violation of this contract, the decision of the Engineer shall be final and binding on both parties hereto. All work provided for in this contract is to be done under the direction and supervision of the Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without charge therefor, to enable the Engineer to properly give lines and grades and to

inspect and measure the work from time to time.

35. All materials of whatever kind to be used in the work will be subject to the inspection and approval of the Engineer. All unsuitable or rejected materials must be removed from the premises at once by the contractor.

36. All work shall be subject to constant inspection before acceptance. Any unfaithful or imperfect work that may be discovered before its final acceptance shall be corrected immediately, and any unsatisfactory material used in the work shall be rejected and removed on the requirement of the Engineer, notwithstanding they may have been overlooked by the inspector and estimated. The inspection of any work shall not relieve the contractor of any of his obligations to perform sound work, as herein specified, and all work which, during its progress and before its final acceptance, may become damaged from any cause, shall be removed and replaced by good and satisfactory work.

37. The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to sublet all or any part of it; it being distinctly understood and agreed that the subletting of the work covered by this contract, or any part thereof, shall, after thirty (30) days' notice, work a forfeiture of the contract at the option of the Sanitary District.

38. During all periods of construction the contractor shall uninterruptedly keep open for navigation a channel of sufficient width in the river to permit continuous traffic on the same.

39. The contractor shall conform to all the ordinances of the City of Chicago and the regulations imposed by the United States Government in any manner affecting this work, and he will release the Sanitary District of Chicago from all responsibility for loss or damage occasioned by delays or inconveniences due to the navigation of the river by vessels of any sort or description or for other causes not now foreseen. He shall also be responsible for and make good all damages to adjoining property which may be occasioned by him or his work in the execution of this contract.

40. The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case the contractor fails to comply with the provisions of this contract as to progress and character of work, he shall be duly notified in writing, and thirty (30) days after the giving of said notice the Sanitary District may declare this contract forfeited, if there is a substantial failure to comply with its provisions.

#### *Tools.*

41. The contractor is to furnish all the tools of every description, including pumps, cars and tracks, boats, barges and

tugs necessary to the full and complete carrying out of this contract, and on completion of the work is to remove all tools, building and materials of all kinds from the sight of the bridge.

#### *Precautions.*

42. Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any causes, or to avoid contingencies which are liable to delay the completion of the work, shall be taken by the contractor.

#### *Workmen.*

43. The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work will be employed where special skill is required, and in the employment of men preference shall be given to union laborers. It is especially understood and agreed that eight (8) hours shall constitute a day's work, and that no workman shall be employed or required to work more than eight (8) hours out of any twenty-four (24) hours, and no work in excess of that time shall be allowed. In the event of any violation of the above eight (8) hour provision, it is agreed hereby that the said District shall, and that it is duly authorized to retain from any money due, or to become due, at any time from it to the contractor, as liquidated damages, the sum of five dollars (\$5) per hour for each hour that any employee shall be required to work in excess of eight (8) hours per day, pursuant to the terms and conditions of the ordinance adopted June 23rd, 1897, attached hereto.

#### *Patents.*

44. It is further agreed that the contractor shall indemnify, keep and save harmless said Sanitary District from all liabilities, judgments, costs, damages and expenses which may in anywise come against said Sanitary District, or which may result on account of any infringement of any patent by means of the use of any materials, machinery, device or apparatus used in the performance of this contract, or of designs furnished by the contractor and accepted by the Sanitary District, except the patents on a bridge design of the Page type controlled by Page & Shnoble, and in the event of any claim or suit or action at law or equity of any kind whatsoever being made or brought against said Sanitary District, then the Sanitary District shall have the right to retain a sufficient amount of money in the same manner and upon the same conditions as hereinafter in the next following clause of this contract provided.

#### *Damages.*

45. If any damage shall be done by the contractor or by any person or persons in his employ to the owner or occupants of land, or to any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, the Engineer shall have the right to estimate the amount

of said damage, and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for said damages shall be deducted from the money due said contractor, under this contract. Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself, or his employees, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for, or on account of, any such injuries, or such damages received or sustained by any person or persons, by or from said contractor, servants, agents, or employees, in the execution of said work; or by or in consequence of any negligence in guarding the same; or by or on account of any omission or act of said contractor, his agents or employees; and the said contractor further agrees that so much of the money due to him under and by virtue of this contract as shall be considered necessary by the Board of Trustees of the Sanitary District may be retained by the said Sanitary District until such suit or claim for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

#### *Time.*

46. The contractor agrees to begin the work covered by this contract within fifteen (15) days after said contract shall have been executed, and to prosecute the building of the structure herein provided for so as to complete the same on or before the first day of October, 1901.

#### *Penalty.*

47. The contractor hereby agrees to forfeit as liquidated damages for any non-compliance with, or fulfillment of the provisions of this contract within the time specified fifty dollars (\$50) per day for each day beyond October 1, 1901, within which the work hereby provided is to be completed, time being an essential part of this contract.

#### *Substructure.*

48. In consideration of the said work being carried on and completed in time and manner as hereinbefore specified, the said Sanitary District agrees to pay to the said contractor for the substructure the following amounts, and the said contractor agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit:

(a) For each cubic yard of excavation, price to include all necessary re-filling as specified, the sum of fifty-four cents (0.54).

(b) For sheet piling and bracing, per 1,000 feet, B. M. (price named to include all spikes, bolts or other iron used in constructing same), as per terms of this contract, the sum of thirty-five dollars (\$35).

(c) For oak timber in wales, fenders

in pier protections and docks, per 1,000 feet, B. M. (price named to include all spikes, bolts, tie rods, bands or other iron to be used in constructing same), as per terms of this contract, the sum or thirty-nine dollars (\$39).

(d) For pine foundation piles, delivered at the site of the work, as specified, per lineal foot, the sum of dollars ( ).

(e) For oak protection piles, delivered at the site of the work, as specified, per lineal foot, the sum of twenty cents (0.20).

(f) For piles driven in foundations, as specified, per lineal foot, the sum of dollars ( ).

(g) For oak piles driven in protection and docks, as specified, per lineal foot, the sum of twenty-five cents (0.25).

(h) For each cubic yard of Portland cement concrete, as specified, the sum of five and 22-100 dollars (\$5.22).

(i) For the removal of the old substructure and superstructure, as specified the sum of four thousand one hundred twenty and no one-hundredths dollars (\$4,120.00).

(j) For extending the sewer through abutments as shown on drawings and specified, the lump sum of two hundred fifty and no one-hundredths dollars (\$250.00).

The prices proposed must include all royalties for patents, or patented material and appliances used in the construction of the work described in the specifications and agreements; and before final payment is made, the contractor shall furnish a satisfactory guarantee against all claims; provided, however, this does not apply to the patented design of the bridge of the Page Bascule Life Bridge, the right to use the same having been purchased by the Sanitary District.

#### *Time and Manner of Payment.*

49. It is agreed by the party of the first part that on or before the 10th and 25th days of each month during the progress of the work and subject to the provisions hereinbefore specified under the head of "Time," payment will be made to the said party of the second part to the amount of eighty-seven and one-half (87½) per cent. of the contract price of the substructure of the approximate amount of work done during the previous half month, upon written certificate from the Engineer that such approximate amount of work has been done during that period; twelve and one-half (12½) per cent. being reserved until the completion and acceptance of the whole work.

#### *Certificate.*

50. Upon the completion of the substructure in accordance with the specifications and contract, to the full satisfaction of the Engineer, and upon the inspection of same and the issuance of the final certificate by the Engineer, the said party of the first part agrees to pay to the said party of the second part the amounts shown to be due to said second party by the said certificate of said En-

gineer, including the twelve and one-half (12½) per cent. reserved.

#### *Failure to Complete.*

51. It is further agreed by the said party of the second part that, if the work to be done under this contract on the substructure shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or if at any time the Engineer shall be of the opinion and shall so certify in writing to the said party of the first part that said work, or any part thereof, is unnecessarily and unreasonably delayed, or that the contractor is wilfully and persistently violating any of the conditions or covenants of this contract, or is not fulfilling said contract in good faith, the said party of the first part shall have the power to notify the said contractor to discontinue all work, or any part thereof, as may be designated by the said party of the first part, and the said party of the first part shall thereupon have the power to either complete said work by contract or to employ such men and teams and to obtain such machinery, implements and tools and to purchase such material as the said Engineer may deem necessary to complete the work herein described, or any part thereof. And, in so doing, said Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work by the said Engineer shall be charged to the said contractor, and the expense so charged shall be deducted and paid by the said party of the first part out of such moneys as may be due, or may at any time thereafter become due to said contractor, under and by virtue of this contract, or any part thereof, so far as the same shall suffice therefor; and the balance, if any, shall be paid by said contractor on demand. Should the amount remaining unpaid of the contract price not suffice therefor then said contractor and his bondsmen shall be held liable for the deficiency. If at any time during the progress of said work, the said contractor shall fail or neglect to pay for labor performed or material furnished upon said work for ten (10) days after it shall have become due, then the party of the first part shall have power to pay for such labor or for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind used or consumed in, upon or on account of the work covered by this contract; the party of the first part shall have the power to pay for such labor or materials, explosives, machinery, appliances, fuel, provisions or supplies of whatsoever sort or kind, out of moneys that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor. In any such case the party of the first part is hereby authorized and empowered by the party of the second part to ascertain by its engineer the amounts due or owing from said contractor to any laborer or laborers, or to any person or persons, for materials, tools, explosives, machinery, appliances,

fuel, provisions or supplies of any sort or kind consumed upon, in or on account of the work covered by this contract in such manner and upon such proofs as the said Engineer may deem sufficient.

*Contractors' Bond.*

52. The contractor shall furnish bond in the sum of fifteen thousand (\$15,000) dollars for the substructure of this bridge, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned upon the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of the said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten (10) days notice thereof in writing, require said contractor to furnish a new and additional bond in place of the bond so having become insufficient or worthless.

*Final Payment.*

53. The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until all of the stipulations hereinbefore mentioned are complied with, and the said Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole, or any portion of the aforesaid work, should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

*In witness whereof,* One the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set their hands and seals.

THE SANITARY DISTRICT OF CHICAGO,

By WM. H. BAKER,

*Vice-President.*

Attest:

A. R. PORTER,  
*Clerk.*

(SEAL)

(SEAL) PAGE & SHENABLE,

(SEAL) JNO. W. PAGE,

(SEAL) E. R. SHENABLE."

**SUPERSTRUCTURE FOR MAIN STREET BRIDGE.**

**"SANITARY DISTRICT OF CHICAGO.**

Contract and specifications for the superstructure of a Highway Rolling Lift Bridge of the Scherzer type, crossing the South Branch of the Chicago River, in the City of Chicago, to be built for the Sanitary District of Chicago.

*This Agreement, Made and entered into this 4th day of February, A. D. 1901, by and between the Sanitary District of Chicago, of the first part, and American Bridge Company, a corporation organized and existing under the laws of the State of New Jersey, with its principal office in the City of New York, in the State of New York, of the second part.*

A—

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions herein after stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the Highway Rolling Lift Bridge for the Sanitary District, Chicago, crossing the South Branch of the Chicago River at Main Street in the City of Chicago.

B

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer or other designated representative of the Sanitary District of Chicago, and his properly authorized agents, and by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer or other designated representative shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein expressed; and the Chief Engineer or other designated representative of the Sanitary District in charge of said work shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Wherever the words "Sanitary District" are used in this contract, they shall be understood to mean the Sanitary District of Chicago, as represented by the

Board of Trustees of the Sanitary District or their duly authorized and accredited agents.

Whenever the word "Engineer" is used herein, it shall be understood to mean either the Chief Engineer of the Sanitary District of Chicago, or the duly designated representative of the Sanitary District.

Wherever the word "Contractor" is used herein it shall be understood to mean the person or persons or co-partnership or corporation entering into the contract as party of the second part.

The following ordinance, passed by the Board of Trustees of the Sanitary District of Chicago, June 23, 1897, is hereby made a part of this contract, and the party of the second part agrees to comply with its provisions, and in case of violation thereof to be subject to the penalties therein authorized to be imposed:

*"Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

*"Section 1.—That in the preparation of all future specifications for contracts for the construction of the Main Channel and auxiliary works, the Engineering Department shall provide that such contracts shall be executed in conformance with the law constituting eight (8) hours a legal day's work in all contracts under the Sanitary District of Chicago, and that, in the employment of labor, contractors shall be required and specifically agree to give preference to Union labor.*

*"Section 2.—That all contracts hereafter executed for the works of the Sanitary District of Chicago shall contain provisions constituting eight (8) hours a legal day's work, and forbidding the employment of any employee or employees for a longer period than eight (8) hours in any twenty-four (24) hours, and that said contract shall vest specific authority in the Police Department of the Sanitary District of Chicago to exercise supervision for the enforcement of this provision, and shall provide that the Board of Trustees of the Sanitary District of Chicago shall be empowered, in all cases of violation of said eight (8) hour law, to deduct and retain from any money accruing to said contractors a sum as liquidated damages at the rate of five dollars (\$5.00) per hour for each employee who shall be required to work in excess of eight (8) hours per day by any contractor on said Canal."*

## SUPERSTRUCTURE.

### GENERAL.

#### *Work Included.*

1. The work included under the contract for the superstructure consists in furnishing all materials and labor, and erecting, complete in place, ready for operation, the superstructure, operating machinery, locks, electrical equipment, river and highway signals, houses, stairs, etc., wooden floor, sidewalks, gas-pipe railings, with the necessary spikes, bolts and washers, and the furnishing of all

anchor rods, tie rods, track girder protections, I beams, anchor columns; in fact all iron or steel to be set in structure, including all templates for setting same, and it shall be furnished by the contractor at the site and at such time as may be required by the progress of the work of the substructure contractor. The contract for the superstructure, in fact, includes everything not included in the substructure contract to put the bridge in complete working order, except the motive power, which will be electricity furnished at the switchboards in the operators' houses. The removal of the old bridge is included in the contract work on the substructure.

#### *Specifications.*

2. The accompanying plans form a part of the specifications, and, in the event of any discrepancy between the plans and these specifications, the judgment of the Engineer shall be decisive thereon. The figured dimensions on the drawings are to be taken whenever they do not agree with the dimensions obtained by scaling from the drawings.

#### *Plans and Specifications.*

3. The General Specifications for Steel Highway Bridges and Viaducts, by Theodore Cooper, 1896 Edition, shall govern in regard to quality of material, proportion of parts, general details of construction, workmanship, painting, erection and inspection, and all other respects, except in the changes and additions herein specified.

4. The accompanying plans form a part of the specifications, and, in the event of any discrepancy between the plans and these specifications, the judgment of the Engineer shall be decisive thereon. The figured dimensions on the drawings are to be taken whenever they do not agree with the dimensions obtained by scaling from the drawings.

#### *Detail Plans.*

5. All detail and shop plans required shall be made at the expense of the contractor, and shall be submitted to the Engineer for approval before beginning work. Such detail plans shall have a uniform size of twenty-six (26) inches by forty (40) inches, inside border lines, with a border margin of one-half (1/2) inch. When submitted for approval, three (3) complete set of prints of such detail plans shall be sent to the Sanitary District of Chicago. The contractor shall furnish the Sanitary District of Chicago with six (6) complete sets of these approved plans, free of cost. No alterations of approved plans will be made by the contractor without the written consent of the Engineer. The approval of the Engineer will not relieve the contractor from the responsibility of errors thereon.

#### *Approval of Plans, Etc.*

6. All detail and shop plans before accepted by the Engineer must meet the approval of Frank M. Montgomery & Co., who shall also have authority to inspect the erection of work.

7. In the case of Canal street, in addi-

tion to approval of Frank M. Montgomery & Co., must be had the approval of the Commissioner of Public Works.

#### *Checking Plans.*

8. All of the accompanying plans shall be carefully checked by the contractor before beginning work. Should any errors be discovered, the Engineer's attention shall be called to the same and corrections made, after which the contractor shall be responsible for all errors which may occur or which may have occurred.

#### **QUALITY OF MATERIAL.**

##### *Wrought Iron.*

9. All wrought iron used shall have an ultimate tensile strength of not less than 48,000 pounds per square inch, an elastic limit of at least 26,000 pounds per square inch, and an elongation of at least 20 per cent in eight inches, and be so ductile that, when bent cold through 180 degrees and hammered down flat on itself, it shall show no signs of fracture on convex side of curve.

##### *Steel.*

10. All steel shall be uniform in quality and made by the "Open Hearth" process.

##### *Structural Steel.*

11. All structural steel shall be medium steel, uniform in quality, and shall be made by the "Open Hearth" process. Tests shall be made upon pieces cut from the finished material, and shall be not less than one-half square ( $\frac{1}{2}$ ) inch in sectional area. Two pieces, one for tensile test and one for bending test, shall be furnished for each blow or cast, and so selected that each heat or furnace full of billets, blooms or slabs shall be represented by at least one test to prove the condition of the metal after reheating, rolling, etc. When tested in specimens as above, medium steel shall have an ultimate tensile strength of from sixty thousand (60,000) pounds to sixty-eight (68,000) pounds per square inch, an elastic limit of not less than thirty-six thousand (36,000) pounds per square inch, shall elongate not less than twenty-five (25) per cent. in eight (8) inches, and show a reduction of area at point of fracture of not less than forty (40) per cent. The test piece must also bend cold one hundred and eighty degrees (180°) around a curve whose diameter is equal to the thickness of the piece, without crack or flaw on convex side of bend. A hole punched for a three-quarter ( $\frac{3}{4}$ ) inch rivet, one and one-half ( $1\frac{1}{2}$ ) inches from the edge of the plate, shall be capable of being enlarged by drifting to one and one-eighth ( $1\frac{1}{8}$ ) inches in diameter, without sign of fracture.

##### *Rivet Steel.*

12. Rivet steel shall have an ultimate strength of fifty thousand (50,000) to fifty-eight thousand (58,000) pounds, and an elastic limit of not less than fifty-five (55) per cent. of the ultimate; an elongation of not less than twenty-seven (27)

per cent. in eight (8) inches, and must bend one hundred and eighty degrees (180°) flat on itself without sign of fracture on convex side of bend.

##### *Hand Riveting.*

13. All rivets, whether shop or field, shall be of the best quality of rivet steel, as specified. Specimens taken from all grades of steel, after being heated to a light cherry red (as seen in the dark) and quenched in water of eighty-two degrees (82°) Fahrenheit, must conform to the bending requirements above.

##### *Chemical Analysis.*

14. The chemical analysis for carbon and phosphorus of each blow or cast must be furnished to the Engineer or his inspectors before any of the material rolled from said blow or cast is shipped from the mill. Phosphorus must not exceed .06 per cent. for acid steel, or .04 per cent. for basic steel.

##### *Chippings and Alterations.*

15. All blooms, billets or slabs shall be examined for surface defects, flaws or blow holes before being rolled into the finished sections, and such chippings and alterations made as will secure perfect solidity in the finished sections.

##### *Marking.*

16. The original blow or cast number must be painted or stamped on all blooms, billets or slabs in order to identify the material throughout the various processes of manufacture; and the original blow or cast number, together with the furnace heat number, must be stamped on each piece of finished material from said blow or heat.

##### *Finish.*

17. All finished rolled material must present a smooth, clean surface, free from buckles, flaws, cracked, ragged edges or any other defects, and must be straight throughout and true to section.

##### *Brittle Steel.*

18. No steel which proves brittle shall be used under any circumstances; if it develops this character at any stage of its manufacture it shall be at once condemned and other material used. The object of the more particular clauses, here-to relating, being to guard against the possibility of the use of this class of metal.

##### *Steel Castings.*

19. All steel castings shall have an ultimate strength of not less than sixty-two thousand five hundred (62,500) pounds per square inch, an elastic limit of not less than thirty-two thousand (32,000) pounds per square inch, shall elongate not less than twenty-five (25) per cent. in two (2) inches, and show a reduction at point of fracture of not less than thirty (30) per cent. The amount of phosphorus contained shall not exceed .06 per cent. All steel castings shall be sound and free from blow holes and roughness, spongi-

ness, pitting, shrinkage cracks and other cracks, cavities, etc., and shall be thoroughly annealed according to the best practice. Each cast shall be so made that sufficient number of test pieces can be cut as to enable the Engineer or his inspectors to satisfy themselves of its quality.

#### *Machinery Steel.*

20. The materials used for shafting and forgings, except where otherwise specified, shall be of "medium" basic or acid "open hearth" steel, of a good finish and uniform quality, in which phosphorus shall not exceed .06 per cent. When tested in specimens of not less than one-half square inch sections, it must show an ultimate strength of sixty thousand (60,000) to sixty-eight thousand (68,000) pounds per square inch, with an elastic limit of at least fifty per cent. (50%) of the ultimate, and an elongation of at least twenty-five per cent. (25%) in eight (8) inches, and forty per cent (40%) reduction in area at point of fracture, and it must bend cold one hundred and eighty (180°) degrees over a diameter equal to its thickness without sign of fracture.

#### *Cast Iron.*

21. Cast iron, except counter weight castings, must be the best quality of soft gray iron. The casting must be free from flaws, ragged edges, or any other defects impairing its efficiency or appearance; and bars of a section one (1) inch square, placed four (4) feet six (6) inches between supports, must be strong enough to bear a weight of five hundred (500) pounds placed half way between supports.

#### *Phosphor Bronze.*

22. Phosphor bronze shall be of the best quality for the purpose for which it is to be used. The castings shall contain eighty-eight (88) per cent. of copper and twelve (12) per cent. of phosphorized tin; the phosphorized tin to contain five (5) per cent. of phosphorus. Upon each casting shall be cast suitable test pieces, which, in breaking, must show a good uniform metal, and when broken in testing machine shall show at least thirty-five thousand (35,000) pounds ultimate tensile strength.

#### *Babbitt Metal.*

23. All the babbitt metal used shall have the following composition: Fifty (50) parts tin, one (1) part copper, five (5) parts antimony.

#### *Counterweight.*

24. The counter-weight blocks shall be of cast iron. They must be smooth and true to dimensions within one and one-quarter (1¼) inch, and free from cracks and blow holes.

#### *Live Load.*

25. The live load used in calculations shall be Cooper's Specifications for Steel Highway Bridges and Viaducts, 1896 Edition, Class A 1.

### **WORKMANSHIP.**

#### *Character of Work.*

26. More than ordinary care must be taken to have all workmanship strictly first-class. The bearings for all shafts must be set to a true line, parallel, and the proper distance between centers. No shimming will be allowed. All bolt holes for connection to the structure of any part of the work to be done under these specifications must be drilled in the field, and all bolts must be turned to a driving fit. All shafting must be turned, care being taken to leave proper fillets at points where the diameter is reduced. All parts of the machinery shall be so designed as to be readily removed and replaced by new parts.

#### *Nut Locks.*

27. Positive nut locks for all bolts shall be furnished, subject to the approval of the Engineer.

#### *Gear Wheels.*

28. All gear wheels must be closely bored to fit their axles or shafts, and properly keyed to the same. They shall be of cast steel, as herein specified, and one duplicate of each different gear shall be furnished by the contractor, if ordered by the Engineer, at the price per pound named in the bids. All gears are to be molded from patterns and such patterns will become the property of the Sanitary District as herein specified.

#### *Irregularities.*

29. Any irregularities that may occur in the teeth of the gear or rack castings must be chipped to template.

#### *Bearings.*

30. All bearings, unless otherwise shown on the plans, shall be babbitted.

#### *Oil Cups.*

31. Proper provision must be made for oiling all bearings, using oil cups approved by the Engineer.

#### *Wrenches.*

32. Suitable wrenches to fit the nuts of all bolts shall be furnished by the contractor without extra charge.

#### *Track Girders.*

33. The web plates and top flange plates, and angles of the track girders, must be faced on top; the cast-steel track plate must get perfect bearing on them. The stiffener angles must have perfect bearing under the flange angles. The cast-steel track plate must be planed on top, outside of the teeth—see detail on track-girder sheet—and over the bottom surface, and the projecting teeth on all four sides to true width and pitch.

#### *Segmental Girders.*

34. The segmental girders, with their track plates and the several members connecting them, must be assembled in

the shop and all rivet holes reamed to proper size, and all pieces properly marked before taking them apart. The web plates of these segmental girders and the flange plates and angles must be faced to be absolutely true to the circle called for and out of wind. The track plates must be faced on top, bottom and ends to get a perfect bearing on them, and also present a true circular surface on the outside. The square holes in the track plates, which engage with the teeth on the track girders, must be cut out to exact pitch, and the width must be such that the lateral play is not more than one-eighth inch ( $\frac{1}{8}$ ").

#### *Operating Struts.*

35. The operating struts must be perfectly true and straight for their full length. The cast-steel rack, forming a part of them, must be planed on both sides and both ends, on center top rib and on the edges at the sides of the teeth to the height of the pitch line, and riveted up so that the pitch is uniform and the pitch line absolutely straight. The pin holes must be bored so that the axis of the hole shall be at a true right angle with the center line of the strut and exactly in the pitch plane of the teeth. The several pieces of rack must be examined carefully, and, if any difference is found between them, those varying the same should be placed so in the struts that they come opposite each other. The cast-steel racks must all be placed by measuring from the center of the pin, and no variation of more than one-thirty-second inch ( $1\text{-}32''$ ) will be allowed. Tap-bolts, one inch ( $1''$ ) diameter shall be used and made to connect the web plate to every second (2d) tooth, near the pitch line on each side of strut.

#### *Erection of Machinery.*

36. The trusses marked "A" and "B" on plans which support machinery must first be erected in the shop and all parts carefully and accurately fitted in order to insure the exact alignment of bearings and meeting of pitch lines of gears and rack, after which the trusses may be taken apart for shipment. All holes for field rivets must be reamed and holes for machinery bolts drilled, and bolts turned to exact but not driving fit.

37. The bottom of vertical posts shall be faced to true surface at right angles to their axis and the bearing plates shown shall be planed on top to true surface.

38. When erected the shaft supporting the main pinion must be at a true angle to the axis of the operating strut so that the teeth of the pinion shall accurately engage the teeth of the operating strut on their respective pitch lines the entire width of the teeth.

#### **ELECTRICAL EQUIPMENT.**

##### *Locks.*

39. The center lock, shown on truss detail sheet, consists of a long tongue fastened between the members of the chord of Leaf No. 1 (which has one controller), extending into the members of the chord of Leaf No. 2 (which has two controllers)

and resting on a diaphragm between the members of Leaf No. 2. It also consists of a short extension of the members of the chord of Leaf No. 2, resting on brackets fastened to the members of Leaf No. 1. In operating the bridge (closing), Leaf No. 2 will be lowered first to a position in which the brackets of Leaf No. 1 will clear the extension of Leaf No. 2 within a few inches; then Leaf No. 1 will be lowered until its tongue touches the diaphragm of Leaf No. 2, after which both leaves will come down together. In operating the bridge (opening), both leaves are raised simultaneously. Indicators, approved by the Engineer, must be provided which will show the position of each leaf during operation to each operator, day and night.

40. For each leaf of the bridge there shall be two rear locks, located and attached as shown on the machinery detail sheet. The rear locks are applied by gravity and opened by solenoids, each solenoid to have a lifting capacity of three hundred (300) pounds over and above the weight of its iron core and lock, and a stroke of five (5) inches.

41. The rear locks must be operated from the operators' houses, and so wired that the first notch of the controller lever operates the locks, releasing them. The rear locks of Leaf No. 1 must be fitted out with submarine electric connections, to be operated in the manner described above, from either of the two operators' houses. Indicators must be provided which show the positions of the locks to the operators, day and night, and the position of the rear locks on Leaf No. 1 must be indicated in the same manner to the operator on the opposite side of the river.

##### *Brakes.*

42. Each leaf of the bridge shall be provided with two band brakes, located and attached as shown on the machinery detail sheet, the wheels of which shall be made of cast steel, the face to be turned. The brake bands shall be of steel, or soft iron strips. The brakes shall be worked by an electric solenoid, braking automatically when the current operating the bridge is cut off through the controller, the first notch of the controller releasing the brake without influencing the motors. One duplicate band brake shall be furnished by the contractor. Two auxiliary foot lever band brakes, located and attached as shown on the machinery detail sheet, shall be provided for each leaf. They shall be so connected to one foot lever in the operators' houses that the pressure of the operator's foot will be distributed equally to each brake.

##### *Motors.*

43. Each leaf of the bridge shall be operated by electric motors, located and attached as shown on machinery detail sheet. These motors shall be of the railway type, series wound, single reduction, multi-polar, water-proof, with steel frame and iron clad armature; each to have a capacity of horse power as shown on machinery detail, at normal speed and five hundred (500) volts, and to be capable of carrying an overload of thirty-three and one-third per cent. (33  $1\text{-}3\%$ ) for thirty (30)



minutes or fifty per cent. (50%) for five (5) minutes, without injurious heating. The armature speed to be not more than six hundred (600) revolutions per minute, when the horse-power hereinbefore specified is being delivered by the motor at five hundred (500) volts. With each motor shall be furnished a cut pinion and gear, with a standard reduction of 1:4.78 and protected by a removable gear case. The contractor shall furnish one extra armature, field coil, pinion and split gear, the same to be duplicates of those furnished with the motors. The motors and solenoids for brakes and taillocks shall be arranged in series.

#### *Pumps and Auxiliary Motors.*

44. Two pumps and two electric motors for operating such pumps shall be furnished and set by the contractor, one on each side of the river, with necessary wiring and connections to switchboard and piping. They shall be of such size and capacity as to pump the counterweight pits, if filled with water, dry in one hour, and shall be of such design and detail as will meet the approval of the Engineer.

#### *Controllers.*

45. One controller, to be placed in each operating house to govern the main operating bridge motors, shall be of the reversible type, fitted with a device for blowing out, and shall be capable of varying and maintaining the speed of the motors from slow speed at the starting point to a maximum speed when full on, without sparking and without shock or jar. It shall be of ample carrying capacity to transmit for one-half ( $\frac{1}{2}$ ) hour, without injurious heating, thirty-three and one-third per cent. (33 1-3%) above the normal amount required by the motors at full load, or transmit for five (5) minutes fifty per cent. (50%) above the normal amount required by the motors. An additional controller, fulfilling the same requirements, shall be provided and placed in the operator's house on the side of the river designated by the Engineer, and so connected by submarine cables, switches, etc., as to be able to control the leaf of the bridge on the opposite side of the river. Care shall be taken to place the long tongue of the center lock on the leaf of the span opposite this additional controller. The first notch, or the first position of each controller lever, shall only release the electric brakes and rear locks, the second notch or position of the controller lever being the first to cut out resistance from and start the operating motors. Two starting boxes for the pump motors shall be provided and placed on the switchboard, one in each operator's house.

#### *Wiring and Cables.*

46. All wiring from the end of the supply wire on the switchboard in the operator's houses on each side of the river shall be furnished by the contractor. All wiring between the switchboards, motors, signals and lights, except the wiring within the operating houses, shall be lead covered, with rubber insulation, and run in iron conduits. Between the switchboards in the operators' houses shall be

furnished and laid, thirty-two (32) feet below Chicago datum, iron armored submarine cables of sufficient insulation and capacity to carry safely the necessary current in strength and frequency to perform the various operations of the motors, locks and brakes, as designated above. All of this work to be subject to the approval of the Engineer.

#### *Lights.*

47. In the operators' houses on each side of the river shall be placed five (5) 16-candle-power lights, and ten (10) additional lights with water-proof sockets shall be placed on each side of the river about the machinery at such points as will be designated by the Engineer.

#### *Cut Outs.*

48. An automatic circuit breaker shall be placed between each feeder and the switch-board. Each submarine cable, each line to motors, each line to solenoids, and each lighting circuit shall be protected by suitable cut-outs, adapted to five hundred (500) volts and the load of the motor.

#### *Switches and Boards.*

49. Suitable switches shall be provided for each motor circuit and for each supply wire. The switches to be of ample carrying capacity for their respective loads, and to be mounted on a suitable switch-board, which shall be placed in a convenient position in each operator's house.

#### *General.*

50. All switches, cut-outs and buttons shall be suitably named and labeled, as directed, indicating their office. A voltmeter, equal to the Weston in quality, shall be placed in each operator's house on the switch-board. The contractor shall also provide and place on each switch-board one ammeter, reading to two hundred (200) amperes, and one fifty thousand (50,000) ohm magneto testing bell.

#### *Operators' Houses, Stairways, Etc.*

51. On each side of the river, located as shown on the approach detail sheet, shall be built and secured in place an operator's house, to be of such general dimensions and appearance as shown on the detail sheet of operators' houses. Stairways and walks of wood on steel framing, from the machinery to the ground, and from the operating house to the machinery, and a wooden house to protect the machinery and electrical equipment from the weather, shall be provided and placed, subject to the approval of the Engineer.

#### *Heating.*

52. Two coal stoves with suitable cast iron pipes and chimneys shall be furnished and set in each operating house subject to the approval of the engineer.

#### *Railings.*

53. Railings shall be made of gas pipe, of such size and design as shown on the detail drawings furnished herewith.

*Signals.*

54. At the extremity of both river arms shall be secured suitable standards, upon which shall be mounted signal stands, showing targets by day and red and green lights by night, the red lights to show to the river and the green lights to the roadway when the bridge is closed, and show reversed when the bridge is open.

55. In each operator's house shall be placed a telephone, complete, with receiver, transmitter, battery and magneto bell, connected by cable beneath the river. Upon the operator's house in which are placed the two controllers shall be placed a one hundred and ten (110) pound Meneeley bell (Troy, N. Y.), to be properly hung, with cord leading to suitable points inside of the operator's house.

*Roadway Paving.*

56. The roadway floor for the stationary parts of the bridge shall consist of yellow pine block paving, blocks to be seven and one-half inches ( $7\frac{1}{2}$ ") long, resting on a floor of yellow pine planking four inches (4") thick, surfaced on one side and to uniform thickness. The planking will be laid at right angles and will be fastened to stringers. The blocks will be laid with close joints and in parallel rows across the roadway. The roadway floor of the movable parts of the bridge shall consist of two courses of planking; the first course to be surfaced on one side to a uniform thickness of three and one-half inches ( $3\frac{1}{2}$ ") and to be from six to ten inches (6" to 10") wide, laid three-quarter inch ( $\frac{3}{4}$ ") apart, at right angles to and well fastened to the stringers. The top course shall be white oak surfaced on one side to uniform thickness of two and three-quarter inches ( $2\frac{3}{4}$ "), laid at right angles to the line of the bridge and well spiked to the lower course. The oak plank to be from six to ten inches (6" to 10") wide, well seasoned and dry, and free from knots and other defects. All pine must be long leaf southern yellow heart pine, good quality, sound, free from sap, wind shakes, and large or loose knots. Each plank must be fastened to each stringer by two three and one-half inches by three-eighth inch ( $3\frac{1}{2}$ " $\times$  $\frac{3}{8}$ ") railroad spikes driven from under side of floor.

*Sidewalks.*

57. The sidewalk planking shall consist of good quality pine, as above specified, surfaced on the upper side and edges. Planks to be six inches (6") wide, to be laid at right angles to bridge, with one-quarter inch ( $\frac{1}{4}$ ") open joints. Planks are to be well spiked to wood strips on stringers.

*Wheel Guard.*

58. The wheel guard shown on plans to run the entire length of bridge, including approaches, and surfaced one side and one edge to true size.

*Patterns.*

59. All patterns for castings shall be the property of the Sanitary District, and shall be delivered by the contractor where directed by the Engineer.

*Extra Inspections.*

60. Should the preparation of the material for this structure be widely distributed, or should unnecessary delays in getting out the same, or delay in the required date of final completion occur, the cost of extra inspection shall be borne by the contractor; the Engineer to be sole judge of what is to be deemed extra inspection.

*Maintenance.*

61. The contractor will be required to maintain the superstructure work for a period of twelve (12) months after the same shall have been completed to the satisfaction of the Engineer, keeping the same in perfect repair during that time against all damages of wear and tear due to imperfect material or faulty workmanship which may be discovered under the legitimate use or operation of the bridge. He shall be required to execute a bond in the sum of \$15,000 for the faithful performance of this before receiving a final payment of his contract.

*Duplicate Castings.*

62. The contractor must furnish such duplicates of the finished castings as directed by the Engineer, at the price per pound named in the bids.

*Painting.*

63. All of the structural metal work before leaving the shop shall receive one good coat of paint of quality hereinafter specified, well rubbed in. In the riveted work, the surfaces coming in contact shall be painted with two coats of paint as above. Bottom of bed plates, bearing plates and any parts not accessible for painting after erection shall have two coats of paint as above. After the structures are erected, the metal work shall be thoroughly and evenly painted with two additional coats of paint of quality as herein specified. The paint must be delivered at the bridge site at least ten (10) days in advance of the time it is to be used, and samples must be submitted to the Engineer for approval as to quality and color. No painting will be permitted to be done in wet or freezing weather. In case any paint is washed or scraped off before becoming dry, the work must be repainted to the satisfaction of the Engineer, and at the contractor's expense. All turned or planed surfaces must receive a coat of white lead and tallow before leaving the works.

*Paint.*

64. The paint to be used as first or shop coat shall be the highest grade of red oxide of iron paint, the pigment to contain at least forty (40) per cent. sesquioxide of iron and be mixed with best boiled linseed oil and turpentine japan dryer. No benzine will be allowed in the paint.

65. The paint for the second and third coats shall be the same as the first coat with the addition of one (1) ounce of best Germantown lamp black to each gallon of paint for the second coat and one and one-half ( $1\frac{1}{2}$ ) ounces of the same lamp

black to each gallon of paint for the third coat, to be thoroughly stirred in by machinery.

66. A written statement and guaranty of the composition of the paint shall be given the Engineer by the manufacturer furnishing the paint.

#### *Camber.*

67. The trusses of the bridge shall be so constructed as to give a slight camber to the floor, under the full live load.

#### *Name Plates.*

68. Two name plates, 16 inches by 26 inches, shall be furnished by the contractor. These plates shall bear the following inscription: "Invented by William Scherzer, C. E. Patented December 26, 1893. Designed by the Scherzer Rolling Lift Bridge Co., Chicago, Ill." Two additional plates shall be inscribed as directed by the Engineer. All plates to be placed on the structure as directed by the Engineer.

#### *Shipment.*

69. All parts shall be carefully loaded so as to avoid injury in transportation, and shall be at the contractor's risk until erected and ready for traffic. All screw ends shall be wrapped with twine before shipment. All pins and small parts must be securely boxed and the boxes plainly marked. The weights of large pieces must be marked on them. The invoices shall state the contents of each box and the weight and description of each piece that is not boxed, and three copies of each invoice shall be furnished the Sanitary District of Chicago. The above weights shall be the actual, not estimated, weights.

#### *Erection.*

70. The contractor shall furnish all staging and false work, shall erect and adjust all the metal work except metal work in substructure as herein specified, shall furnish and put in place all floor timbers and timber guards. The contractor shall assume all risks of accidents to men or material prior to the acceptance of the finished structure. The contractor must also remove all false work, piling and other obstructions, or unsightly material produced by his operations. The contractor shall furnish all templates for setting metal work in substructure and in proper time for erection of such work.

#### *Final Acceptance.*

71. Any material or workmanship which does not satisfy the requirements of these specifications may be rejected by the Engineer at any time before the final acceptance of the work, and the contractor shall make good all deficiencies at his own cost. The fact that the authorized inspectors have inspected said material or workmanship shall not make the Sanitary District liable for extra cost above that specified in the contract for replacing the same with material or workmanship accepted by the Engineer on final acceptance.

#### *General Conditions.*

72. The drawings furnished form a part of these specifications, and any work shown therein shall be executed the same as if mentioned herein. The work is to be made complete and to the satisfaction of the Engineer, notwithstanding any omissions in plans or specifications.

#### *Changes in Plans.*

73. The quantity of work and material figured from the plans is approximate, and the Sanitary District reserves the right to make any changes in the plans or specifications, which may be deemed necessary, either before or after beginning the construction thereof; provided, that if alterations are made, the general character of the work as a whole is not changed thereby. If such alterations diminish the quantity of work to be done, they shall not constitute a claim for damages nor for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract. Notice of change of plan must be given to the contractor in writing, and it is expressly agreed that no alterations or additions or extra work are to be paid for, unless so directed in writing.

#### *Extra Work.*

74. All claims for extra labor or material furnished by the contractor, or for damages from any cause whatever, must be reported to the Engineer at the time such labor or material is furnished or such damages occur, and they must also be presented to him in writing at the end of the month; provided that nothing shall be paid for as extra work that can be classified under any of the heads upon which prices are fixed by this contract. Whenever work is required to be done, which is not now contemplated or covered by the prices hereinafter given, the Committee on Engineering shall fix such prices for the work as they shall consider just and equitable, and the contractor shall abide by such prices, provided he enters upon such work with a full knowledge of the prices so fixed by the said Committee; but if the contractor declines executing said work at the prices fixed by said Committee, then the Sanitary District may enter into contract with any person or persons for its execution the same as if this contract had never existed; and if extra work or work not provided for in this contract is performed by the contractor before prices have been fixed for such work, then the Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said contractor shall accept such prices in full satisfaction of all the demands against the Sanitary District for said extra work; provided that, if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the

actual cost of the work with fifteen (15) per cent added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

#### *Responsibility of Contractor.*

75. It is further agreed that in all cases of question or dispute arising or growing out of this contract in any way regarding the cost or value of extras, variations, allowances, deductions, or the amount of damages in any manner growing out of the violation of this contract, the decision of the Engineer shall be final and binding on both parties hereto. All work provided for in this contract is to be done under the direction and supervision of the Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without extra charge therefor, to enable the Engineer to properly give lines and grades and measure the work from time to time.

76. All materials of whatever kind to be used in the work will be subject to the inspection and approval of the Engineer. All unsuitable or rejected materials must be removed from the premises at once by the contractor.

77. All work shall be subject to constant inspection before acceptance. Any unfaithful or imperfect work that may be discovered before its final acceptance shall be corrected immediately, and any unsatisfactory material used in the work shall be rejected and removed on the requirement of the Engineer, notwithstanding they may have been overlooked by the inspector and estimated. The inspection of any work shall not relieve the contractor of any of his obligations to perform sound work, as herein specified, and all work which, during its progress and before its final acceptance, may become damaged from any cause, shall be removed and replaced by good and satisfactory work.

78. The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to sublet all or any part of it; it being distinctly understood and agreed that the subletting of the work covered by this contract, or any part thereof, shall, after thirty (30) days' notice, work a forfeiture of the contract at the option of the Sanitary District.

79. During all periods of construction the contractor shall uninterruptedly keep open for navigation a channel of sufficient width in the river to permit continuous traffic on the same.

80. The contractor shall conform to all the ordinances of the City of Chicago and the regulations imposed by the United States Government in any manner affecting this work, and he will release the Sanitary District of Chicago from all re-

sponsibility for loss or damage occasioned by delays or inconveniences due to the navigation of the river by vessels of any sort or description or for other causes not now foreseen. He shall also be responsible for and make good all damages to adjoining property which may be occasioned by him or his work in the execution of this contract.

81. The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case the contractor fails to comply with the provisions of this contract as to progress and character of work, he shall be duly notified in writing, and thirty (30) days after the giving of said notice the Sanitary District may declare this contract forfeited, if there is a substantial failure to comply with its provisions.

#### *Tools.*

82. The contractor is to furnish all the tools of every description, including pumps, cars and tracks, boats, barges and tugs necessary to the full and complete carrying out of this contract, and on completion of the work is to remove all tools, building and materials of all kinds from the sight of the bridge.

#### *Precautions.*

83. Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, shall be taken by the contractor.

#### *Workmen.*

84. The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work will be employed where special skill is required, and in the employment of men preference shall be given to union laborers. It is especially understood and agreed that eight (8) hours shall constitute a day's work, and that no workman shall be employed or required to work more than eight (8) hours out of any twenty-four (24) hours, and no work in excess of that time shall be allowed. In the event of any violation of the above eight (8) hour provision, it is agreed hereby that the said District shall, and that it is duly authorized to retain from any money due, or to become due, at any time from it to the contractor, as liquidated damages, the sum of five dollars (\$5) per hour for each hour that any employee shall be required to work in excess of eight (8) hours per day, pursuant to the terms and conditions of the ordinance adopted June 23, 1897, attached hereto.

#### *Patents.*

85. It is further agreed that the contractor shall indemnify, keep and save harmless said Sanitary District from all liabilities, judgments, costs, damages and expenses which may in anywise come

against said Sanitary District, or which may result on account of any infringement of any patent by means of the use of any materials, machinery, device or apparatus used in the performance of this contract, or of designs furnished by the contractor and accepted by the Sanitary District, except the patents on a bridge design of the Scherzer type controlled by Frank M. Montgomery & Co., and in the event of any claim or suit or action at law or equity of any kind whatsoever being made or brought against said Sanitary District, then the Sanitary District shall have the right to retain a sufficient amount of money in the same manner and upon the same conditions as hereinafter in the next following clause of this contract provided.

#### *Damages.*

86. If any damage shall be done by the contractor or by any person or persons in his employ to the owner or occupants of land, or to any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, the Engineer shall have the right to estimate the amount of said damage, and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for said damages shall be deducted from the money due said contractor, under this contract. Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself, or his employees, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for, or on account of, any such injuries, or such damages received or sustained by any person or persons, by or from said contractor, servants, agents, or employees, in the execution of said work; or by or in consequence of any negligence in guarding the same; or by or on account of any omission or act of said contractor, his agents or employees; and the said contractor further agrees that so much of the money due to him under and by virtue of this contract as shall be considered necessary by the Board of Trustees of the Sanitary District may be retained by the said Sanitary District until such suit or claim for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

#### *Time.*

87. The contractor agrees to begin the work covered by this contract within fifteen (15) days after said contract shall have been executed, and to prosecute the building of the structure herein provided for so as to complete the same on or before the first day of January, 1902.

#### *Penalty.*

88. The contractor hereby agrees to forfeit as liquidated damages for any non-compliance with, or fulfillment of the provisions of this contract within the

time specified fifty dollars (\$50) per day for each day before January 1, 1902, within which the work hereby provided is to be completed, time being an essential part of this contract.

89. In case the substructure is not completed and ready to receive the superstructure by October 1, 1901, an extension of time will be granted for the completion of the superstructure equivalent to the time required beyond October 1, 1901, for the completion of the substructure.

#### *Prices.*

90. In consideration of the said work being carried on and completed in the time and manner as hereinbefore specified, the said Sanitary District agrees to pay to the said contractor for the superstructure the following amounts, and the said contractor agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit:

(a) For the superstructure, furnished and erected complete, including operating machinery, locks, signals, electrical equipment, pumps with motors, houses, etc., for operating this bridge, as specified, and to furnish all iron and steel in the substructure at the site of the bridge, except the steel lining to counter-weight pits, the sum of seventy-two thousand eight hundred (\$72,800.00) dollars.

(b) For furnishing the steel lining for counter-weight pits, as shown on drawings, the sum of two and ninety-five one hundredths (2.95-100) cents per pound.

(c) For extra medium or soft steel, erected in place, the sum of three and seventy-five one hundredth (3.75-100) cents per pound.

(d) For extra iron castings, erected in place, the sum of three (3) cents per pound.

(e) For extra cast steel in track plates, erected in place, the sum of seven and one-half (7½) cents per pound.

(f) For extra steel castings and all other steel for machinery, erected in place, the sum of ten (10) cents per pound.

(g) For extra phosphor bronze, erected in place, the sum of fifty (50) cents per pound.

(h) For extra counter-weight block castings, erected in place, the sum of one and one-half (1½) cents per pound.

(i) For extra yellow pine or oak put in place as specified, per one thousand (1,000) feet, B. M., the sum of fifty (\$50.00) dollars.

The prices proposed must include all royalties for patents, or patented material or appliances used in the construction of the work described in the specifications and agreements; and before final payment is made, the contractor shall furnish a satisfactory guaranty against all claims; provided, however, this does not apply to the patented design of the bridge of the Scherzer Rolling Lift Bridge Company, the right to use the same having been purchased by the Sanitary District.

*Time and Manner of Payment.*

91. It is agreed by the party of the first part that on or before the 10th day of each month during the progress of the work and subject to the provisions hereinbefore specified under the head of "time," payment will be made to the said party of the second part to the amount of sixty (60) per cent. of the value, as estimated by the Engineer, of the structural metal delivered under this contract, upon written certificate from the Engineer that such amount of material has been delivered during that period at the site of the bridge; forty (40) per cent. being reserved until the completion and acceptance of the work by the party of the first part. The said forty (40) per cent. to be paid upon the written certificate of the Engineer within thirty days after said acceptance.

*Certificate.*

92. Upon the completion of the superstructure in accordance with the specifications and contract, to the full satisfaction of the Engineer, and upon the inspection of same and the issuance of the final certificate by the Engineer, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to the said party of the second part by the said certificate of the said Engineer.

*Failure to Complete.*

93. It is further agreed by the said party of the second part that, if the work to be done under this contract on the superstructure shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or if at any time the Engineer shall be of the opinion and shall so certify in writing to the said party of the first part that said work, or any part thereof, is unnecessarily and unreasonably delayed, or that the contractor is wilfully and persistently violating any of the conditions or covenants of this contract, or is not fulfilling said contract in good faith, the said party of the first part shall have the power to notify the said contractor to discontinue all work, or any part thereof, as may be designated by the said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams and to obtain such machinery, implements and tools and to purchase such material as the said Engineer may deem necessary to complete the work herein described, or any part thereof. And, in so doing, said Engineer may use such tools, implements and materials as may be found upon the line of work. The cost of doing such work by the said Engineer shall be charged to the said contractor, and the expense so charged shall be deducted and paid by the said party of the first part out of such moneys as may be due, or may at any time thereafter become due to said contractor, under and by virtue of this contract, or any part thereof, so

far as the same shall suffice therefor; and the balance, if any, shall be paid by said contractor on demand. Should there be a failure by the second party to deliver said material of the character and strength herein provided for at the time herein specified, or if, after delivery of same as herein provided, said contractor should fail financially, either before or after having been paid the sixty (60) per cent. of the contract price as hereinbefore provided, and be unable to carry out said contract and complete said work, then, in that case, the said party of the first part shall have the power to complete said work by contract or otherwise, at its discretion, and charge up the cost of so completing the said work to said contractor. Should the amount remaining unpaid of the contract price not suffice therefor then said contractor and his bondsmen shall be held liable for the deficiency. If at any time during the progress of said work, the said contractor shall fail or neglect to pay for labor performed or material furnished upon said work for ten (10) days after it shall have become due, then the party of the first part shall have power to pay for such labor or for materials, tools, machinery, appliances, fuel, provisions or supplies of any sort or kind used or consumed in, upon or on account of the work covered by this contract; the party of the first part shall have the power to pay for such labor or materials, machinery, appliances, fuel, provisions or supplies of whatsoever sort or kind, out of moneys that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor. In any such case the party of the first part is hereby authorized and empowered by the party of the second part to ascertain by its Engineer the amounts due or owing from said contractor to any laborer or laborers, or to any person or persons, for materials, tools, machinery, appliances, fuel, provisions or supplies of any sort or kind consumed upon, in or on account of the work covered by this contract in such manner and upon such proofs as the said Engineer may deem sufficient.

*Contractors' Bond.*

94. The contractor shall furnish bond in the sum of thirty-five thousand (\$35,000) dollars for the superstructure of this bridge, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned upon the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of the said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten (10) days' notice thereof in writing, require said contractor to furnish a new and additional bond in place of the bond so having become insufficient or worthless.

*Final Payment.*

95. The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or

materials except in the manner set forth in this agreement, nor until all of the stipulations hereinbefore mentioned are complied with, and the said Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole, or any portion of the aforesaid work, should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

*In witness whereof,* On the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set its hand and seal.

THE SANITARY DISTRICT OF CHICAGO,

By WM. H. BAKER,

*Vice-President.*

Attest:

A. R. PORTER,

(SEAL)

*Clerk.*

(SEAL) AMERICAN BRIDGE COMPANY,

By FRANK CONGER,

*Vice-President.*

Attest:

M. SCHOONMAKER,

*Secretary."*

#### SUBSTRUCTURE FOR MAIN STREET BRIDGE.

"SANITARY DISTRICT OF CHICAGO.

Contract and specifications for the substructure of a Highway Rolling Lift Bridge of the Scherzer type, crossing the South Branch of the Chicago River in the City of Chicago, to be built for the Sanitary District of Chicago.

*This Agreement, Made and entered into this 4th day of February A. D. 1901, by and between the Sanitary District of Chicago, of the first part, and The Lydon and Drews Company, a corporation organized and doing business under the laws of the State of Illinois of the City of Chicago in the State of Illinois of the second part.*

A—

WITNESSETH, That the said party of the

second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the Highway Rolling Lift Bridge for the Sanitary District, Chicago, crossing the South Branch of the Chicago River at Main street in the City of Chicago.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer or other designated representative of the Sanitary District of Chicago, and his properly authorized agents, and by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer or other designated representative shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein expressed; and the Chief Engineer or other designated representative of the Sanitary District in charge of said work shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Wherever the words "Sanitary District" are used in this contract, they shall be understood to mean the Sanitary District of Chicago, as represented by the Board of Trustees of the Sanitary District or their duly authorized and accredited agents.

Whenever the word "Engineer" is used herein, it shall be understood to mean either the Chief Engineer of the Sanitary District of Chicago, or the duly designated representative of the Sanitary District.

Wherever the word "Contractor" is used herein it shall be understood to mean the person or persons or co-partnership or corporation entering into the contract as

party of the second part.

The following ordinance, passed by the Board of Trustees of the Sanitary District of Chicago June 23, 1897, is hereby made a part of this contract, and the party of the second part agrees to comply with its provisions, and in case of violation thereof to be subject to the penalties therein authorized to be imposed:

*"Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

"Section 1.—That in the preparation of all future specifications for contracts for the construction of the Main Channel and auxiliary works, the Engineering Department shall provide that such contracts shall be executed in conformance with the law constituting eight (8) hours a legal day's work in all contracts under the Sanitary District of Chicago, and that, in the employment of labor, contractors shall be required and specifically agree to give preference to Union labor.

"Section 2.—That all contracts hereafter executed for the works of the Sanitary District of Chicago shall contain provisions constituting eight (8) hours a legal day's work, and forbidding the employment of any employee or employees for a longer period than eight (8) hours in any twenty-four (24) hours, and that said contract shall vest specific authority in the Police Department of the Sanitary District of Chicago to exercise supervision for the enforcement of this provision, and shall provide that the Board of Trustees of the Sanitary District of Chicago shall be empowered, in all cases of violation of said eight (8) hour law, to deduct and retain from any money accruing to said contractors a sum as liquidated damages at the rate of five dollars (\$5.00) per hour for each employee who shall be required to work in excess of eight (8) hours per day by any contractor on said Canal."

#### SUBSTRUCTURE.

##### GENERAL.

##### *Work Included.*

1. The work included under the contract for the substructure consists in removing from the site all of the superstructure, the abutments, piers, foundation piles and fenders of the old bridge, and such a part of the present dock and approach as is necessary for the completion of the new bridge, and furnish all labor and materials, except the steel or iron, and erecting, complete in place, the substructure as hereinafter specified and detailed on masonry sheet herewith, refilling such a part of the dock removed as directed by the Engineer, and the dredging of the channel of the river as hereinafter specified. And diverting sewer as shown on drawings and hereinafter specified. All steel or iron in the substructure, together with paint for same, will be furnished by the contractor for the superstructure, but the contractor for the substructure shall erect and paint such steel or iron in the field, as specified.

##### *Materials in the Old Bridge.*

2. All of the old piles shall be pulled out. Such white oak or burr oak piles as are found after pulling to be in good condition and the requisite size and length may be used in the new work. The superstructure of the old bridge and all of the old material in the substructure removed and unfit for use in the new work shall become the property of and must be removed by the contractor, the cost of removing the same to be covered in the

price bid for removing old substructure and superstructure as specified. Except in the case of Canal street bridge, wherein the said superstructure shall become the property of the City of Chicago, and shall be removed by the contractor to the repair shop of the City of Chicago, at Eighteenth street, as directed by the Engineer. The cost for the same to be covered in the price bid for the removal of old substructure and superstructure, as specified.

##### *Plans and Specifications.*

3. The accompanying plans form a part of the specifications, and, in the event of any discrepancy between the plans and these specifications, the judgment of the Engineer shall be decisive thereon. The figured dimensions on the drawings are to be taken whenever they do not agree with the dimensions obtained by scaling from the drawings.

##### *Detail Plans.*

4. All detail plans required shall be made at the expense of the contractor, and shall be submitted to the Engineer for approval before beginning work. Such detail plans shall have a uniform size of twenty-six (26) inches by forty (40) inches, inside border lines, with a border margin of one-half (½) inch. When submitted for approval, three (3) complete set of prints of such detail plans shall be sent to the Sanitary District of Chicago. The contractor shall furnish the Sanitary District of Chicago with six (6) complete sets of these approved plans, free of cost. No alterations of approved plans will be made by the contractor without the written consent of the Engineer. The approval of the Engineer will not relieve the contractor from the responsibility of errors thereon.

##### *Approval of Plans.*

5. All detail plans before accepted by the Engineer must meet the approval of Frank M. Montgomery & Co., who shall also have authority to inspect the erection of work.

6. In the case of Canal street, in addition to approval of Frank M. Montgomery & Co. must be had the approval of the Commissioner of Public Works of the City of Chicago.

##### *Checking Plans.*

7. All of the accompanying plans shall be carefully checked by the contractor before beginning work. Should any errors be discovered, the Engineer's attention shall be called to the same and corrections made, after which the contractor shall be responsible for all errors which may occur or which may have occurred.

#### QUALITY OF MATERIAL.

##### *Piles.*

8. All foundation piles, if required, supporting masonry shall be Norway pine, and all others must be of white or burr oak. They must be sound and straight, not less than fourteen inches (14") at the butt nor less than nine inches (9") at the small end, and of uniform taper. Piles



for the piers are to be of such length that they may be driven, if possible, to rest upon the rock at the elevation shown on the plans.

#### *Timber.*

9. All timbers used in docks, anchors, sheeting, wales, fenders, etc., must be sound, straight and free from any defects which might impair its strength or durability, and be of such variety and dimensions as hereinafter specified or shown on drawings.

#### *Broken Stone.*

10. All broken stone for concrete shall be as nearly as possible cubical in shape, free from dirt or other foreign substances, and, if screened, must also be free from flat chips or dust. Stones shall not be larger than two inches (2") in any direction, and in quality subject to the approval of the Engineer.

#### *Cement.*

11. The best Portland cement shall be used on this work, brand and quality to be subject to the approval of the Engineer. The weight per cubic foot of Portland cement shall be not less than one hundred (100) pounds. The development of tensile strength for Portland cement shall be not less than four hundred (400) pounds per square inch, after being exposed one (1) day in air and six (6) days in water. All lumpy, dirty or damaged cement shall be rejected; also damaged or short-weight packages.

#### *Sand.*

12. The sand shall be coarse, sharp and clean, free from all clay, loam or gravel, and of a quality approved by the Engineer.

#### *Brick.*

13. The brick for sewers shall be selected and of first grade of hard sewer brick, equal in quality to requirements of city ordinances.

#### **CLASS OF WORK.**

##### *Excavation.*

14. All foundations shall be prepared to receive the masonry by the contractor, who shall make excavation to such a depth and width sufficient to allow of the construction of the work herein specified. The contractor shall also, where necessary, supply and operate, free of cost, all pumps in order to keep the foundation excavation dry. The contractor shall provide, drive, frame and place all sheet piling or other timber work necessary to the successful excavation and protection of the foundation excavation, and shall maintain the same until masonry shall have been built. Such material excavated as is necessary for filling the approaches shall be deposited as directed by the Engineer within a limit of 400 feet from the site of the excavation, free of all cost or expense to the Sanitary District of Chicago. All other material excavated from the foundations, except such as shall be needed for filling back of and around the

masonry of the new bridge, shall be removed entirely from the bridge site and disposed of as the contractor may see fit, free of all cost or expense to the Sanitary District of Chicago; but none of the material so excavated shall be deposited in any navigable waters, save as permitted by the United States Engineer Department. All refilling ordered by the Engineer shall be done without extra cost to the Sanitary District. The contractor must remove the old docks, sidewalks and roadways, where it is necessary for the completion of the new bridge, and must do all the necessary filling behind the abutment walls and join the new and old work to the satisfaction of the Engineer.

##### *Piles.*

15. All piles must be driven by a steam hammer, unless otherwise directed by the Engineer, and if so directed by the Engineer, a follower shall be used in driving. If, in the opinion of the Engineer, any pile proves imperfect or becomes unfit for use under the hammer, or is not driven straight, it must be removed by the contractor without extra cost. If so directed by the Engineer, the piles shall have the bark removed. Should any of the piles raise or change their position after being driven, they shall be re-driven, if so directed by the Engineer, at the expense of the contractor. All piles must be cut level and at proper elevation. Payment for piles must be made on the following basis: 1st: Per lineal foot for all piles delivered on the order of the Engineer, at the site of the work. 2d: For all piles driven per lineal foot below the cut-off line, the prices designated on the bid.

##### *Sheet Piling.*

16. Sheet piling and bracing may be of any timber suitable for the purpose, and shall be of such dimensions and placed as directed by the Engineer. Cofferdams are to be built around the piers where, in the opinion of the Engineer, it is necessary, sufficiently heavy and strong to permit the excavation for the foundations to a depth of thirty (30) feet below Chicago datum, to be kept dry at all times during construction. Piles for use in coffer-dams may be of any timber that will stand the driving and have the necessary strength to stand the strains to which they will be subjected. Such piles will be paid for at the same rate per lineal foot, delivered at the site of the work, as pine piles; and when driven will be paid for at such rate per lineal foot as is paid for "oak piles driven in protection and docks." Upon the completion of the work, the coffer-dams around the piers are to be removed by the contractor at his own expense.

##### *Concrete.*

17. All concrete used shall consist of one part Portland cement, three parts sand and five parts screened broken stone, bulk measurement. If unscreened broken stone be used, the proportions shall be one part cement, two parts of sand and six parts of broken stone, and the mass shall be turned over at least 100 times by a mechanical mixer. If the

Engineer will permit, the mixing of concrete with screened broken stone may be done by hand on suitable platforms. The cement and sand shall first be thoroughly mixed dry, after which the stone, properly moistened, shall be added, with sufficient clean water to make the whole mass, when thoroughly mixed, a tenacious and quaking mixture, without surplus of water. The concrete shall be immediately deposited in the work in layers not over six (6) inches thick, each layer to be thoroughly and compactly tamped until the whole mass is perfectly solid and free mortar appears on the surface. No retempering shall be allowed. All loose stone and foreign material lying on the old concrete must be removed before laying any new concrete thereon. All dead concrete must be removed from the work. All tie rods and anchor bolts must be solidly set in mortar of the quality specified. The placing of anchors and other metal work which must be bedded in the concrete is to be covered in the price bid for said concrete.

#### *Mortar.*

18. All mortar used shall be of the cement and sand hereinbefore specified. When used for track girder protection, it shall be used in proportion of one part cement to four parts sand. For beds and joints it shall be mixed in proportion of one part cement and two parts sand, bulk measurement, and for pointing, plastering or setting anchors it shall consist of equal volumes of cement and sand. For counter-weight and floor pit lining, six (6) inches thick, it shall consist of equal volumes of cement and sand. These ingredients shall be thoroughly mixed dry, when sufficient clean water shall be added to make a paste of the proper consistency and must be used at once. No mortar shall be used that has set or become stiff, nor shall any retempering be permitted.

#### *Abutments.*

19. There will be two abutments of the dimensions and location shown on the accompanying plans. They will rest directly upon hard clay, or upon piles, as detailed on the plans herewith. Where piles are used, they shall be driven as specified, and cut level at the elevations shown on the plans. If the ground on which the concrete is to be placed is soft, it shall be made compact by ramming cobble and broken stone in the same until it is solid and firm.

20. The anchorage columns, steel stiffening beams, tie rods, bolsters and anchor bolts shall be located and constructed as shown on the plans. The anchorages shall be held firmly and securely in place, while the concrete and stone work is being built up around them in layers, as specified, to the dimensions and form shown on the plans. The contractor shall make any and all templates which shall be called for by the Engineer, and place the same so as to secure accurate lines for setting any work that may require it. He shall also set any templates furnished by the superstructure contractor, and the cost of this work shall be included in the price to be paid for setting iron and steel in the masonry.

#### *Counter-weight Pit Lining.*

21. The counter-weight pits are to be lined with a six (6) inch thick cement mortar facing, of the quality and materials hereinbefore specified, or if ordered by the Engineer, the cement mortar lining shall be omitted and concrete substituted and a steel lining, furnished by the superstructure contractor, shall be erected as hereinafter specified, by the substructure contractor, the price per pound extra for erecting this steel lining to be named in the bid.

22. If steel linings for pits are ordered by the Engineer, such linings shall be erected and secured to the masonry to resist water pressure, as shown on masonry sheet. This steel lining shall be erected, riveted and caulked, and the anchors set, as the concrete is placed. The outside surfaces of the steel lining shall be coated with asphalt paint, as directed by the Engineer. Such paint shall be furnished by the superstructure contractor. The substructure contractor shall guarantee that these linings will not leak when completed.

#### *Flooding.*

23. The contractor shall make such provision along and around the tops of the piers and abutments that a steel guard or protection of plates and angles may be readily and securely fastened there, if found necessary at some future time to protect the track girders and counter-weight pits from being flooded by high water. Provision has been made in the general plan for such a guard.

#### *Track Girder Protection.*

24. The track girders shall be protected by a steel trough composed of three-eighth (3/8) inch plates and three by three by one-half (3x3x1/2) inch angles, as shown on detail plans, the intervening space being filled with Portland cement mortar, as specified. The protection to the track girders shall be erected after the superstructure contractor has erected and riveted all braces to track girder.

#### *Protection.*

25. The large corner clumps of the protections shall be fifty (50) foot oak piles, securely bound together with five (5) laps of three-fourth (3/4) inch chain, spiked all around with six by one-fourth (6x1/4) inch wrought iron spikes. The piles in front and flank aprons will be of oak, fifty (50) feet long and spaced as shown. Caps to be twelve by twelve (12x12) inch oak, and wales of eight by twelve (8x12) inch oak, all secured as shown. Any temporary protection piles required shall be put in place and removed at the expense of the contractor.

#### *Refilling.*

26. Upon the completion of the masonry of the retaining walls, the roadways and sidewalks to the full width of wall shall be refilled by the contractor to these retaining walls, finishing the roadway and sidewalks of the approaches ready for traffic and to the satisfaction of the Engineer, without extra compensation. All filling to be done with good material.

in layers, carefully tamped and watered to make the same solid and compact.

#### *Docking.*

27. All docking along either bank of the river, wherever disturbed or damaged, shall be reconstructed by the contractor to the satisfaction of the Engineer. The same must butt against the new work in a workmanlike and substantial manner.

#### *Dredging.*

28. Upon the completion of the work the contractor shall, at his own expense, dredge the channel between the docks for a distance of seventy-five (75) feet on either side of the center line of the new structure, providing a depth of not less than twenty (20) feet below flow line. No obstruction of any kind shall be left within the above described limits, no matter of what kind or nature. All material, of whatever kind, deposited during the progress of the work under this contract, upon adjacent streets or grounds, must, upon completion of the contract, be promptly removed by the contractor at his own expense.

#### *Sewers.*

29. The contractor, when making excavation, shall provide proper supports for present sewer, and where necessary to tear out old sewer, he shall provide, during construction of piers, a temporary duct to empty into the river. The contractor shall construct permanent sewers wherever so shown on plans, and properly connect same to city work, and such work must conform strictly to the requirements of the city ordinances. This work shall be covered in a lump sum named in the bid.

29a. The water tunnel beneath the river at Main street is to be extended and a new shaft to the tunnel built, as shown on sheet No. 38-E-10 of the plans. This tunnel extension and shaft are to be constructed similar in size and workmanship to the one now in existence at this place, and of the same quality of brick as heretofore specified for sewers. This work will be paid per lineal foot of shaft sunk and per lineal foot of tunnel constructed as determined by the Engineer.

30. The contractor shall arch over and fill in old shaft of water tunnel, where such is indicated on plans, and the same shall be covered in lump sum named in bid.

31. The materials for above work to be same as specified for sewers.

32. The contractor shall, during construction, maintain the present water pipes, sewer and gas mains, or conduits of any kind that may be unearthed by him. This maintenance must be done in a manner satisfactory to the Engineer and to the Commissioner of Public Works of the City of Chicago.

33. No water shall be drawn from the fire hydrants until the necessary permit is procured.

#### *Examining Site.*

34. Prospective bidders for this work

are required to carefully examine the existing structure to inform himself, or themselves, as to the magnitude and nature of the contemplated removals, and also the facilities for the delivery of new material at the site. No plea of ignorance of what is required, as a result of failure to make proper examinations, will in any case be accepted as a sufficient excuse for any failure or omission on the part of the contractor to fulfill in every detail all the requirements of this contract.

#### *Measurements*

35. Measurements of all masonry shall be by the cubic yard, and all payments shall be made upon the actual cubical contents of the completed masonry within the lines as shown on the plans. Measurements of all materials shall be in accordance with the units of measurements as herein specified.

#### *Erection.*

36. The contractor shall furnish all staging and false work, shall erect and adjust all the metal work in substructure, shall furnish and put in place all templates to accurate lines, timber guards, and set and secure in place all masonry bolts. The contractor shall assume all risks of accidents to men or material prior to the acceptance of the finished structure. The contractor must also remove all false work, piling and other obstructions, or unsightly material produced by his operations.

#### *Final Acceptance.*

37. Any material or workmanship which does not satisfy the requirements of these specifications may be rejected by the Engineer at any time before the final acceptance of the work, and the contractor shall make good all deficiencies at his own cost. The fact that the authorized inspectors have inspected said material or workmanship shall not make the Sanitary District liable for extra cost above that specified in the contract for replacing the same with material or workmanship accepted by the Engineer on final acceptance.

#### *General Conditions.*

38. The drawings furnished form a part of these specifications, and any work shown therein shall be executed the same as if mentioned herein. The work is to be made complete and to the satisfaction of the Engineer, notwithstanding any omissions in plans or specifications.

#### *Changes in Plans.*

39. The quantity of work and material figured from the plans is approximate, and the Sanitary District reserves the right to make any changes in the plans or specifications, which may be deemed necessary, either before or after beginning the construction thereof; provided, that if alterations are made, the general character of the work as a whole is not changed thereby. If such alterations diminish the quantity of work to be done, they shall not constitute a claim for damages nor for anticipated profits on the

work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract. Notice of change of plan must be given to the contractor in writing, and it is expressly agreed that no alterations or additions or extra work are to be paid for, unless so directed in writing.

#### *Extra Work.*

40. All claims for extra labor or material furnished by the contractor, or for damages from any cause whatever, must be reported to the Engineer at the time such labor or material is furnished or such damages occur, and they must also be presented to him in writing at the end of the month; provided that nothing shall be paid for as extra work that can be classified under any of the heads upon which prices are fixed by this contract. Whenever work is required to be done, which is not now contemplated or covered by the prices hereinafter given, the Committee on Engineering shall fix such prices for the work as they shall consider just and equitable, and the contractor shall abide by such prices, provided he enters upon such work with a full knowledge of the prices so fixed by the said Committee; but if the contractor declines executing said work at the prices fixed by said Committee, then the Sanitary District may enter into contract with any person or persons for its execution the same as if this contract had never existed; and if extra work or work not provided for in this contract is performed by the contractor before prices have been fixed for such work, then the Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said contractor shall accept such prices in full satisfaction of all the demands against the Sanitary District for said extra work; provided that, if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work with fifteen (15) per cent. added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

#### *Responsibility of Contractor.*

41. It is further agreed that in all cases of question or dispute arising or growing out of this contract in any way regarding the cost or value of extras, variations, allowances, deductions, or the amount of damages in any manner growing out of the violation of this contract, the decision of the Engineer shall be final and binding on both parties thereto. All work provided for in this contract is to be done under the direction and supervision of the Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during

the progress of the work, and is to furnish all needed facilities, without charge therefor, to enable the Engineer to properly give lines and grades and to inspect and measure the work from time to time.

42. All materials of whatever kind to be used in the work will be subject to the inspection and approval of the Engineer. All unsuitable or rejected materials must be removed from the premises at once by the contractor.

43. All work shall be subject to constant inspection before acceptance. Any unfaithful or imperfect work that may be discovered before its final acceptance shall be corrected immediately, and any unsatisfactory material used in the work shall be rejected and removed on the requirement of the Engineer, notwithstanding they may have been overlooked by the inspector and estimated. The inspection of any work shall not relieve the contractor of any of his obligations to perform sound work, as herein specified, and all work which, during its progress and before its final acceptance, may become damaged from any cause, shall be removed and replaced by good and satisfactory work.

44. The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to sublet all or any part of it; it being distinctly understood and agreed that the subletting of the work covered by this contract, or any part thereof, shall, after thirty (30) days' notice, work a forfeiture of the contract at the option of the Sanitary District.

45. During all periods of construction the contractor shall uninterruptedly keep open for navigation a channel of sufficient width in the river to permit continuous traffic on the same.

46. The contractor shall conform to all the ordinances of the City of Chicago and the regulations imposed by the United States Government in any manner affecting this work, and he will release the Sanitary District of Chicago from all responsibility for loss or damage occasioned by delays or inconveniences due to the navigation of the river by vessels of any sort or description or for other causes not now foreseen. He shall also be responsible for and make good all damages to adjoining property which may be occasioned by him or his work in the execution of this contract.

47. The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case the contractor fails to comply with the provisions of this contract as to progress and character of work, he shall be duly notified in writing, and thirty (30) days after the giving of said notice the Sanitary District may declare this contract forfeited, if there is a substantial failure to comply with its provisions.

*Tools.*

48. The contractor is to furnish all the tools of every description, including pumps, cars and tracks, boats, barges and tugs necessary to the full and complete carrying out of this contract, and on completion of the work is to remove all tools, building and materials of all kinds from the sight of the bridge.

*Precautions.*

49. Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, shall be taken by the contractor.

*Workmen.*

50. The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work will be employed where special skill is required, and in the employment of men preference shall be given to union laborers. It is especially understood and agreed that eight (8) hours shall constitute a day's work, and that no workman shall be employed or required to work more than eight (8) hours out of any twenty-four (24) hours, and no work in excess of that time shall be allowed. In the event of any violation of the above eight (8) hour provision, it is agreed hereby that the said District shall, and that it is duly authorized to retain from any money due, or to become due, at any time from it to the contractor, as liquidated damages, the sum of five dollars (\$5) per hour for each hour that any employee shall be required to work in excess of eight (8) hours per day, pursuant to the terms and conditions of the ordinance adopted June 23, 1897, attached hereto.

*Patents.*

51. It is further agreed that the contractor shall indemnify, keep and save harmless said Sanitary District from all liabilities, judgments, costs, damages and expenses which may in anywise come against said Sanitary District, or which may result on account of any infringement of any patent by means of the use of any materials, machinery, device or apparatus used in the performance of this contract, or of designs furnished by the contractor and accepted by the Sanitary District, except the patents on a bridge design of the Scherzer type controlled by Frank M. Montgomery & Co., and in the event of any claim or suit or action at law or equity of any kind whatsoever being made or brought against said Sanitary District, then the Sanitary District shall have the right to retain a sufficient amount of money in the same manner and upon the same conditions as herein-after in the next following clause of this contract provided.

*Damages.*

52. If any damage shall be done by the contractor or by any person or persons

in his employ to the owner or occupants of land, or to any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, the Engineer shall have the right to estimate the amount of said damage, and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for said damages shall be deducted from the money due said contractor, under this contract. Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself, or his employees, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for, or on account of, any such injuries, or such damages received or sustained by any person or persons, by or from said contractor, servants, agents, or employees, in the execution of said work; or by or in consequence of any negligence in guarding the same; or by or on account of any omission or act of said contractor, his agents or employees; and the said contractor further agrees that so much of the money due to him under and by virtue of this contract as shall be considered necessary by the Board of Trustees of the Sanitary District may be retained by the said Sanitary District until such suit or claim for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

*Time.*

53. The contractor agrees to begin the work covered by this contract within fifteen (15) days after said contract shall have been executed, and to prosecute the building of the structure herein provided for so as to complete the same on or before the first day of October, 1901.

*Penalty.*

54. The contractor hereby agrees to forfeit as liquidated damages for any non-compliance with, or fulfillment of the provisions of this contract within the time specified fifty dollars (\$50) per day for each day beyond October 1, 1901, within which the work hereby provided is to be completed, time being an essential part of this contract.

*Substructure Prices.*

55. In consideration of the said work being carried on and completed in time and manner as hereinbefore specified, the said Sanitary District agrees to pay to the said contractor for the substructure the following amounts, and the said contractor agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit:

(a) For each cubic yard of excavation, price to include all necessary refilling as specified, the sum of fifty-two cents (52c.)

(b) For sheet piling and bracing, per 1,000 feet, B. M. (price named to include

all spikes, bolts or other iron used in constructing same), as per terms of this contract, the sum of thirty-seven dollars (\$37.00).

(c) For oak timber in wales, fenders in pier protections and docks, per 1,000 feet, B. M. (price named to include all spikes, bolts, tie rods, bands or other iron to be used in constructing same), as per terms of this contract, the sum of forty-seven dollars (\$47.00).

(d) For pine foundation piles, delivered at the site of the work, as specified, per lineal foot, the sum of seventeen cents (17c).

(e) For oak protection piles, delivered at the site of the work, as specified, per lineal foot, the sum of twenty-seven cents (27c).

(f) For piles driven in foundations, as specified, per lineal foot, the sum of thirteen cents (13c).

(g) For oak piles driven in protection and docks, as specified, per lineal foot, the sum of seven cents (7c).

(h) For each cubic yard of Portland cement concrete, as specified, the sum of five and fifty one hundredths dollars (\$.50).

For each cubic yard of cement facing or counter-weight pits, as specified, the sum of nine and fifty one hundredths dollars (\$.95).

(i) For each cubic yard of cement facing for counter-weight pits, as specified, the sum of — dollars (\$).

(k) For erecting, riveting, caulking and painting water-tight steel lining for counter-weight pits, as specified, the sum of one-half of one cent ( $\frac{1}{2}$ c) per pound.

(l) For erecting, riveting, caulking and painting protections to track girders, in place, as specified, the setting of all anchor columns, tie rods, beams, in fact, all iron or steel set in masonry, as specified, the sum of one-half of one cent ( $\frac{1}{2}$ c) per pound.

(m) For the removal of the old substructure and superstructure, as specified the sum of one thousand and two hundred and no one-hundredths dollars (\$1,200).

(n) For the diverting of the sewer as shown on drawing and specified, the lump sum of two hundred fifty and no one-hundredths dollars (\$250.00).

(o) For the maintenance of water tunnel, as specified, the lump sum of five hundred and no one-hundredths dollars (\$500.00).

(p) For sinking shaft for water tunnel, per lineal foot, the sum of thirty-three and no one-hundredths dollars (\$33.00).

(q) For extension of water tunnel to new shaft, per lineal foot, the sum of thirty-three and no one-hundredths dollars (\$33.00).

The prices proposed must include all royalties for patents, or patented material and appliances used in the construction of the work described in the specifications and agreements; and before final payment is made, the contractor shall furnish a satisfactory guarantee against

all claims; provided, however, this does not apply to the patented design of the bridge of the Scherzer Rolling Lift Bridge Company, the right to use the same having been purchased by the Sanitary District.

#### *Time and Manner of Payment.*

56. It is agreed by the party of the first part that on or before the 10th and 25th days of each month during the progress of the work and subject to the provisions hereinbefore specified under the head of "Time," payment will be made to the said party of the second part to the amount of eighty seven and one-half (87 $\frac{1}{2}$ ) per cent of the contract price of the substructure of the approximate amount of work done during the previous half month, upon written certificate from the Engineer that such approximate amount of work has been done during that period; twelve and one-half (12 $\frac{1}{2}$ ) per cent. being reserved until the completion and acceptance of the whole work.

#### *Certificate.*

57. Upon the completion of the substructure in accordance with the specifications and contract, to the full satisfaction of the Engineer, and upon inspection of same and the issuance of the final certificate by the Engineer, the said party of the first part agrees to pay to the said party of the second part the amounts shown to be due to said second party by the said certificate of said Engineer, including the twelve and one-half (12 $\frac{1}{2}$ ) per cent. reserved.

#### *Failure to Complete.*

58. It is further agreed by the said party of the second part that, if the work to be done under this contract on the substructure shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or if at any time the Engineer shall be of the opinion and shall so certify in writing to the said party of the first part that said work, or any part thereof, is unnecessarily and unreasonably delayed, or that the contractor is wilfully and persistently violating any of the conditions or covenants of this contract, or is not fulfilling said contract in good faith, the said party of the first part shall have the power to notify the said contractor to discontinue all work, or any part thereof, as may be designated by the said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams and to obtain such machinery, implements and tools and to purchase such material as the said Engineer may deem necessary to complete the work herein described, or any part thereof. And, in so doing, said Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work by the said Engineer shall be charged to the said contractor, and the expense so charged shall be deducted and paid by the said party of the first part out of such moneys as may be due, or may at

any time thereafter become due to said contractor, under and by virtue of this contract, or any part thereof, so far as the same shall suffice therefor; and the balance, if any, shall be paid by said contractor on demand. Should the amount remaining unpaid of the contract price not suffice therefor then said contractor and his bondsmen shall be held liable for the deficiency. If at any time during the progress of said work, the said contractor shall fail or neglect to pay for labor performed or material furnished upon said work for ten (10) days after it shall have become due, then the party of the first part shall have power to pay for such labor or for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind used or consumed in, upon or on account of the work covered by this contract; the party of the first part shall have the power to pay for such labor or materials, explosives, machinery, appliances, fuel, provisions or supplies of whatever sort or kind, out of moneys that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor. In any such case the party of the first part is hereby authorized and empowered by the party of the second part to ascertain by its engineer the amounts due or owing from said contractor to any laborer or laborers, or to any person or persons, for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind consumed upon, in or on account of the work covered by this contract in such manner and upon such proofs as the said Engineer may deem sufficient.

#### Contractors' Bond.

59. The contractor shall furnish bond in the sum of fifteen thousand (\$15,000) dollars for the substructure of this bridge, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned upon the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of the said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten (10) days notice thereof in writing, require said contractor to furnish a new and additional bond in place of the bond so having become insufficient or worthless.

#### Final Payment.

60. The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until all of the stipulations hereinbefore mentioned are complied with, and the said Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such

sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole, or any portion of the aforesaid work, should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

*In witness whereof,* On the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set its hand and seal.

THE SANITARY DISTRICT OF CHICAGO,

(SEAL) By WM. H. BAKER,

Vice-President.

Attest:

A. R. PORTER,

(SEAL)

Clerk.

(SEAL) THE LYDON & DREWS CO.,

(SEAL) WM. A. LYDON,

President.

(SEAL) HARRY C. LYDON,

Secretary."

#### SUPERSTRUCTURE FOR CANAL STREET BRIDGE.

*The contract and specifications for the superstructure for the Highway Rolling Lift Bridge for the Sanitary District crossing the South Branch of the Chicago River at Canal Street in the City of Chicago, are identical in every respect with those for the superstructure of the Highway Rolling Lift Bridge crossing the South Branch of the Chicago River at Main Street, in the City of Chicago, as printed in the Proceedings of this date, on pages 7070-81, except that part of these contracts pertaining to dates, special prices for the work, etc., which parts are as follows:*

"SANITARY DISTRICT OF CHICAGO,

Contract and specifications for the superstructure of a Highway Rolling Lift Bridge of the Seherzer type, crossing the South Branch of the Chicago River, in the City of Chicago, to be built for the Sanitary District of Chicago.

*This Agreement, Made and entered into this 4th day of February A. D. 1901, by and between the Sanitary District of Chicago, of the first part, and American Bridge Company, a corporation organized and existing under the laws of the State of New Jersey,*

with its principal office in the City of New York, in the State of New York of the second part.

A—

WITNESSETH, That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the Highway Rolling Lift Bridge for the Sanitary District, Chicago, crossing the South Branch of the Chicago River at Canal street in the City of Chicago.

#### Prices.

90. In consideration of the said work being carried on and completed in the time and manner as hereinbefore specified, the said Sanitary District agrees to pay to the said contractor for the superstructure the following amounts, and the said contractor agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit:

(a) For the superstructure, furnished and erected complete, including operating machinery, locks, signals, electrical equipment, pumps with motors, houses, etc., for operating the bridge, as specified, and to furnish all iron and steel in the substructure at the site of the bridge, except the steel lining to counter-weight pits, the sum of seventy-one thousand one hundred (\$71,100.00) dollars.

(b) For furnishing the steel lining for counter-weight pits, as shown on drawings, the sum of two and ninety-five one hundredths (2 95-100) cents per pound.

(c) For extra medium or soft steel, erected in place, the sum of three and seventy-five one hundredths (3 75-100) cents per pound.

(d) For extra iron castings, erected in place, the sum of three (3) cents per pound.

(e) For extra cast steel in track plates, erected in place, the sum of seven and one-half (7½) cents per pound.

(f) For extra steel castings and all other steel for machinery, erected in place, the sum of ten (10) cents per pound.

(g) For extra phosphor bronze, erected in place, the sum of fifty (50) cents per pound.

(h) For extra counter-weight block castings, erected in place, the sum of one and one-half (1½) cents per pound.

(i) For extra yellow pine or oak put in place as specified, per one thousand (1,000) feet, B. M., the sum of fifty (\$50.00) dollars.

#### SUBSTRUCTURE FOR CANAL STREET BRIDGE.

*The contract and specifications for the substructure for the Highway Rolling Lift Bridge for the Sanitary District, crossing the South Branch of the Chicago River at Canal Street, in the City of Chicago, are identical in every respect with those for the substructure of the Highway Rolling Lift Bridge crossing the South Branch of the Chicago River at Main Street, in the City of Chicago, as printed in the Proceedings of this date on pages 7081-89, except that part of these contracts pertaining to dates, special prices for the work, etc., which parts are as follows:*

#### "SANITARY DISTRICT OF CHICAGO.

Contract and specifications for the substructure of a Highway Rolling Lift Bridge of the Scherzer type, crossing the South Branch of the Chicago River in the City of Chicago, to be built for the Sanitary District of Chicago.

*This Agreement, Made and entered into this 4th day of February, A. D. 1901, by and between the Sanitary District of Chicago, of the first part, and the Lydon & Drews Company, a corporation organized and doing business under the laws of the State of Illinois, of the City of Chicago, in the State of Illinois, of the second part.*

A—

Witnesseth, That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the Highway Rolling Lift Bridge for the Sanitary District, Chicago, crossing the South Branch of the Chicago River at Canal street in the City of Chicago.

#### Substructure Prices.

55. In consideration of the said work being carried on and completed in time and manner hereinbefore specified, the said Sanitary District agrees to pay to the said contractor for the substructure the following amounts, and the said con-



tractor agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit:

(a) For each cubic yard of excavation, price to include all necessary refilling as specified, the sum of fifty-two cents (0.52).

(b) For sheet piling and bracing, per 1,000 feet, B. M. (price named to include all spikes, bolts or other iron used in constructing same), as per terms of this contract, the sum of thirty-seven dollars (\$37.00).

(c) For oak timber in wales, fenders in pier protections and docks, per 1,000 feet, B. M. (price named to include all spikes, bolts, tie rods, bands or other iron to be used in constructing same), as per terms of this contract, the sum of forty-seven dollars (\$47.00).

(d) For pine foundation piles, delivered at the site of the work, as specified, per lineal foot, the sum of seventeen cents (0.17).

(e) For oak protection piles, delivered at the site of the work, as specified, per lineal foot, the sum of twenty-seven cents (0.27).

(f) For piles driven in foundations, as specified, per lineal foot, the sum of thirteen cents (0.13).

(g) For oak piles driven in protection and docks, as specified, per lineal foot, the sum of seven cents (0.07).

(h) For each cubic yard of Portland cement concrete, as specified, the sum of

five and fifty one-hundredths dollars (\$5.50).

(i) For each cubic yard of cement facing for counter-weight pits, as specified, the sum of nine and fifty hundredths dollars (\$9.50).

(k) For erecting, riveting, caulking and painting water-tight steel lining for counter-weight pits, as specified, the sum of one-half cent (0.005) per pound.

(l) For erecting, riveting, caulking and painting protections to track girders, in place, as specified, the setting of all anchor columns, anchor rods, tie rods, beams, in fact, all iron or steel set in masonry, as specified, the sum of one-half cent (0.005) per pound.

(m) For the removal of the old substructure and superstructure, as specified, the sum of six thousand dollars (\$6,000.00).

(n) For diverting of the sewer as shown on drawing and specified, the lump sum of ——— dollars (\$ ).

(o) For the maintenance of water tunnel, as specified, the lump sum of ——— dollars (\$ ).

#### ADJOURNMENT.

On motion of Mr. Smyth the Board adjourned.

*A. R. Porter.*  
CLERK

March 18,]

—7092—

[1901

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

MARCH 20, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Twenty-second Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Wednesday, March 20, 1901, at 2 o'clock P. M.

The President, Mr. Jones, took the Chair,

and the meeting being called to order there were then

*Present*—Messrs. Baker, Carter, Jones, Webb and Wenter—Five.

*Absent*—Messrs. Braden, Cloldt, Legner and Smyth—Four.

Mr. Cloldt arriving subsequently.

**MINUTES.**

On motion of Mr. Baker, the minutes of the regular meeting held February 27, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

CONSTRUCTION ACCOUNT.		
Isham Randolph (Fan Handle Bridge).....	\$	29 63
ENGINEERING DEPARTMENT.		
Isham Randolph (expense).....	\$	86 61
Ralph Modjeski (services, Eight-track Bridge).....	116 38	
	—————\$	202 99

## CLERICAL DEPARTMENT.

Edwards & Hancock (stationery).....	\$ 4 00	
Wyckoff, Seamans & Benedict (repairs) .....	8 00	
	<u>          </u>	\$ 13 00

## LAW DEPARTMENT.

Jas. D. Cockcroft (law book).....	\$ 6 00	
Edward Thompson Company (law book).....	12 00	
Thayer & Jackson Stationery Company (stationery).....	2 45	
The Gunthorpe-Warren Printing Co., (printing).....	14 25	
Edwards & Hancock (stationery).....	15 60	
James Todd, Attorney, (expense).....	41 05	
The Globe-Wernicke Company (book cases).....	54 00	
Murray J. Brady (court reporting).....	43 05	
	<u>          </u>	\$ 188 40

## GENERAL ACCOUNT

Sibley Warehouse and Storage Company (storage).....	\$ 6 00	
Consolidated Press Clippings Company (press clippings).....	15 00	
Art Metal Construction Company (steel cupboard).....	27 00	
Isham Randolph (telephone line).....	168 34	
Security Building Receivership (rent, March, 1901).....	458 33	
Western Electric Company (telephone line).....	819 19	
	<u>          </u>	\$ 1,495 86

## POLICE DEPARTMENT.

Otis P. Graves (coal).....	\$ 18 50	
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## MAINTENANCE ACCOUNT.

Isham Randolph (freight, Bridgeport).....	\$ 19 20	
Isham Randolph (pay roll, warehouse) .....	140 00	
	<u>          </u>	\$ 159 20
Grand total.....	<u>          </u>	<u>\$ 2,104 58</u>

Mr. Carter, seconded by Mr. Baker, moved that the vouchers as read and shown above be approved and ordered paid.

The roll being called, it was so ordered.

Yea—Messrs. Baker, Carter, Jones, Webb and Wenter—Five.

Nay—None.

## MONTHLY REPORT OF THE ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department, being for the month ending February 28, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

CHICAGO, March 16, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith present the re-

port of the Engineering Department for the month of February, 1901, giving the detailed operations of same.

The value of construction work done during the month was \$41,510, divided as follows: Main Channel, \$30,105.21; bridges, \$21,404.79. Vouchers were issued on this account to the amount of \$39,082 03.

The engineering expenses for the month were \$9,426.77, divided as follows: Salaries, \$6,388.54; supplies, etc., \$3,108 23. The expenses at the Bridgeport Pumping Works were \$290.54, divided as follows: Salaries, \$235.00; supplies, etc., \$5.54. Details of the above figures are given in tabulated statements submitted herewith.

## Division of Construction.

Chicago River—The contractors for dredging and docking the river were given a partial estimate of 5,500 cubic yards of excavation; 437 lineal feet of dock removed,

and 430 lineal feet of new dock. This work was done on the Louis Hutt property on the east side of the river, just north of Twenty-second Street, and was practically completed at the end of the month.

These contractors commenced the work of removing the old Canal Street Bridge about the first of the month, and at the end of same, had the metal of the east half of the bridge about all taken down.

On the east side of the C. T. T. R. R. Co.'s Bridge, the coffer dam was re-driven, and water was pumped in an endeavor to place a pipe to shut off the water from the tunnel. The contractors were unable to make the dam tight. On the west side the iron erectors placed track girders and connections and riveted same.

*Section "O"*—Some work was done by the P., C., C. & St. L. Ry. Co. in grading and laying steel preparatory to putting its traffic on the new Eight-Track Bridge. A small amount of work was done on the temporary trestles by each of the railroad companies in interest at that point. Men were employed several times during the month in clearing away ice jams at these trestles.

*Section 12*—Peter Finnegan moved Norton's scales to its new location and completed the roadway to same. Excavation of the old scales roadway was made and the new Romeo highway nearly completed. There yet remained top dressing for the highway.

*General.*

*New Telephone System*—During the month about 700 feet of wire, which had been stolen, was replaced by the repair men.

*Bridgeport Pumping Works*—This plant is laid up for the winter, and the reduced force mentioned in the last report was continued.

Considerable work was done during the month by the engineer corps in connection with flow measurements, in sounding the West Fork and in making computations, etc., for the Expert Commission.

*Division of Designing and Drafting.*

The following drawings, etc., were made: Copies of discharge tables, diagrams of same and miscellaneous drawings for the Special Commission.

The work of checking the plans for the machinery for Ashland Avenue Bridge was carried on from the 1st to the 16th. The general plan of the Randolph Street Bridge, giving the grades and location of substructure, was received from Frank A. Montgomery & Co. on the 16th, as was also the proposed layout of the machinery for that bridge. These plans were checked on the 17th and 18th. The balance of the month was spent in making various estimates for the Expert Commission.

*Division of Records.*

The work of this division for February was carried on in the usual manner.

I estimate the expenses for the month of March, 1901, will be \$150,000.00.

Respectfully submitted,

(Signed)

ISHAM RANDOLPH,

*Chief Engineer.*

**SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.**  
**CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF FEBRUARY, 1901.**

CLASSIFICATION.	ENGINEERING EXPENSES.			Construc- tion.	BRIDGEPORT P. WORKS.	
	Salaries.	Supplies, Etc.	Totals.		Salaries.	Supplies, Etc.
Maps and Plans for General Use.....	\$ 90 00	\$ 3 05	\$ 187 74	.....	.....	.....
Chicago River Surveys.....	35 09	47 74	102 65	.....	.....	.....
Right of Way.....	7 55	7 55	15 10	.....	.....	.....
Flow Measurements.....	1,328 25	889 74	2,217 99	.....	.....	.....
Photographs of Works.....	150 00	67 62	217 62	.....	.....	.....
Mortar, Sand and Cement Tests.....	943 75	8 35	952 10	.....	.....	.....
Expert Commission.....	1,471 04	141 41	1,612 45	.....	.....	.....
Chicago River Improvement.....	787 50	165 96	953 46	.....	.....	.....
Construction of Main Channel proper and River Diversion.....	90 00	64	90 64	.....	.....	.....
Disposal Works and Joliet Project.....	427 50	50 17	477 67	.....	.....	.....
State Street Bridge, Chicago River.....	200 00	.....	200 00	.....	.....	.....
Van Buren Street Approach Span, Chicago River.....	.....	1 10	1 10	.....	.....	.....
Taylor Street Bridge, Chicago River.....	680 00	1,735 74	2,415 74	.....	.....	.....
G. T. R. Co.'s Bridge, Chicago River.....	.....	82	82	.....	.....	.....
Polk Street Bridge, Chicago River.....	75 96	.....	75 96	.....	.....	.....
Canal Street Bridge, Chicago River.....	103 74	.....	103 74	.....	.....	.....
Ashland Avenue Bridge, Chicago River.....	.....	1 35	1 35	.....	.....	.....
Eighteenth Street Bridge, Chicago River.....	35 97	.....	35 97	.....	.....	.....
Main Street Bridge, Chicago River.....	90 00	.....	90 00	.....	.....	.....
Punahou Temporary Bridge, Main Channel, Section O.....	180 00	25 13	205 13	.....	.....	.....
Punahou Temporary Bridge, Main Channel, Section O.....	.....	.....	.....	.....	.....	.....
Belt Ry. Co. of Chicago's Temporary Bridge, Main Channel, Section K.....	220 00	10 09	230 09	.....	.....	.....
Belt Ry. Co. of Chicago's Permanent Bridge, Main Channel, Section K.....	95 83	25	120 83	.....	.....	.....
C. T. R. Co.'s Permanent Bridge, Main Channel, Section E.....	.....	.....	.....	.....	.....	.....
Romeo Road Permanent Bridge, Main Channel, Section H.....	.....	.....	.....	.....	.....	.....
Bridgeport Pumping Works.....	.....	.....	.....	.....	.....	.....
Totals.....	\$6,318 54	\$3,106 83	\$9,425 37	\$39,082 03	\$285 00	\$ 5 54
Total.....	.....	.....	.....	.....	.....	\$290 54

## SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—QUANTITIES.

*Amount Done During February, 1901.*

DESIGNATION.	Glacial Drift. Cu. Yds.	Solid Rock Cu. Yds.	Retaining Wall. Cu. Yds.
Chicago River.....	5,500	.....	.....
Section 17.....	13,200	2,000	350
Totals .....	18,700	2,000	350

## SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—VALUES.

*Amount Earned During February, 1901.*

DESIGNATION.	Main Channel.	Bridges.	Totals.
Chicago River.....	\$11,244 75	.....	\$ 11,244 75
Section O.....	730 56	\$ 1,139 34	1,868 90
Section K.....	.....	2,928 60	2,928 60
Section 17.....	8,106 19	.....	8,106 19
Section 18.....	10 26	.....	10 26
Controlling Works.....	14 45	.....	14 45
Van Buren Street Approach Span, Chicago River.....	.....	148 50	148 50
Taylor Street Bridge, Chicago River.....	.....	75 00	75 00
C. T. T. R. R. Co.'s Bridge, Chicago River.....	.....	58 00	58 00
Eight-track bridge, Main Channel, Sec. O.....	.....	468 88	468 88
Belt Ry. Co. of Chicago's bridge, Main Channel, Sec. K.....	.....	16,642 29	16,642 29
C. T. T. R. R. Co.'s bridge, Main Channel, Sec. E.....	.....	44 18	44 18
Totals.....	\$20,105 21	\$21,404 79	\$41,510 00

REPORT IN REFERENCE TO SETTLEMENT  
OF THE CASE OF JOHN A. BIGGOTT VS.  
THE SANITARY DISTRICT.

Mr. Webb, member of the Committee on Judiciary, presented a report from the Committee in reference to the suit of John A. Biggott vs. The Sanitary District of Chicago, now pending in the Circuit Court of Cook County, and referred to the Committee on Judiciary at the meeting of the Board held February 27, 1901 (page 7017 of the Proceedings), said suit being for the loss of crops caused by rains washing down the clay banks over and upon the lands of said Biggott; and recommending that the Attorney of the District be authorized and directed to settle said suit on behalf of the District for the sum of \$150 00.

The following is the report :

CHICAGO, March 20, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Judiciary, to whom was referred on Febru-

ary 27, 1901 (page 7017 of the Proceedings), a communication from the Attorney of the Board, in the matter of the settlement of the case of John A. Biggott vs. The Sanitary District, being a claim for loss of crops, begs leave to report that it has investigated the matters set forth in said communication, and recommends that the Attorney of the Board be authorized to settle said case in the manner set forth in said communication.

Respectfully submitted,

(Signed) Z. R. CARTER,  
FRANK WENTER,  
WM. H. BAKER,  
THOMAS J. WEBB,  
ALEX. J. JONES.  
*Committee on Judiciary.*

(One enclosure.)

Mr. Webb, seconded by Mr. Carter, moved that the report be adopted and the Attorney of the Board directed to settle said suit on behalf of the District for the

sum of \$150.00, upon the dismissal of said suit and a proper discharge and release by said Biggott of any and all claims for damages against the Sanitary District arising out of the said suit.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Carter, Jones, Webb and Wenter—Five.

*Nays*—None.

REPORT IN REFERENCE TO MARSH & BINGHAM COMPANY CLAIM AGAINST THE TOLEDO BRIDGE COMPANY ON ACCOUNT OF THE BELT RAILWAY BRIDGE.

Mr. Carter, Chairman, presented a report from the Committee on Finance recommending that the President and Clerk of the District be authorized and directed to pay to the Marsh & Bingham Company the sum of \$628.64, this amount having been retained by the Clerk of the Board from the moneys due the Toledo Bridge Company on its contract for the construction of the Belt Railway bridge to protect the claim of an equal amount against the Toledo Bridge Company on account of the Belt Railway bridge.

The following is the report:

CHICAGO, March 20 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance advises your Honorable Body that, pursuant to an order of the Board adopted December 12, 1900 (page 6408 of the Proceedings), the Clerk withheld and still retains the sum of six hundred and twenty-eight and 64-100 dollars of the moneys due The Toledo Bridge Company on their final voucher for the supplying and erecting of the Belt Railway Bridge across the Main Channel on Contract Section "K," to protect a claim of an equal amount filed against the said The Toledo Bridge Company, for material furnished by the Marsh & Bingham Company, and used in the construction of said bridge.

The Marsh & Bingham Company has requested payment to them of this amount and the Chief Engineer has advised that all of the material charged for in the said claim

was used by the contractors and is in his opinion a just and proper charge against the contract. The Attorney has also investigated the rights and powers of the Trustees in the premises and is of the opinion that the Board has full power under said contract to settle the said claim and pay same to the claimants, the said Marsh & Bingham Company.

Your Committee therefore recommends that the President and Clerk be authorized and directed to pay to the said Marsh & Bingham Company the amount of their claim, i. e., six hundred and twenty-eight and 64-100 dollars, upon their executing a proper receipt and release therefor, and that the said amount be charged to the account of The Toledo Bridge Company.

Attached herewith are the report of the Chief Engineer and the opinion of the Attorney for filing.

Respectfully submitted,

(Signed)

Z. R. CARTER,

*Chairman.*

WM. H. BAKER,

THOMAS J. WEBB,

FRANK WENTER,

ALEX. J. JONES,

*Committee on Finance.*

(Two enclosures.)

Mr. Carter, seconded by Mr. Baker moved that the report be adopted and the recommendations contained therein concurred in.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Carter, Jones, Webb and Wenter—Five.

*Nays*—None.

REPORT IN REFERENCE TO PAYMENT OF AWARD IN THE CASE OF THE SANITARY DISTRICT OF CHICAGO VS. ROBT. H. LAW ET AL.

Mr. Carter, chairman, presented a report from the Committee on Finance in reference to the communication from the Attorney of the District regarding the payment of the award in the case of the Sanitary District of Chicago vs Robert H. Law et al., referred to the Committee, with power to act, at the meeting of the Board held March 13, 1901 (page 7049 of the Proceedings); the report setting forth



that said award, amounting to \$20,875.23, has been paid to the Merchants' Loan and Trust Company, being in accordance with the decree of the Circuit Court of Cook County.

The following is the report:

CHICAGO, March 20, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance, to which was referred, with full power to act, the communication of the Attorney in regard to the payment of the award in the case of *The Sanitary District of Chicago vs. Robert H. Law et al.*, lately pending in the Circuit Court of Cook County, begs leave to report that it has paid the said award, amounting to \$20,875.23 to the Merchants' Loan and Trust Company in accordance with the decree of the said Circuit Court.

Respectfully submitted,

(Signed) Z. R. CARTER,  
*Chairman.*  
WM. H. BAKER,  
THOMAS J. WEBB,  
FRANK WENTER,  
ALEX J. JONES.  
*Committee on Finance.*

(One enclosure.)

Mr. Carter, seconded by Mr. Baker, moved that the report be adopted and the action of the Committee concurred in.

The roll being called, it was so ordered:

*Yeas*—Messrs. Baker, Carter, Jones, Webb and Wenter—Five.

*Nays*—None.

REPORT SUBMITTING FORMS OF GROUND LEASES TO BE ENTERED INTO AND EXECUTED BY THE PRESIDENT AND CLERK OF THE BOARD ON BEHALF OF THE SANITARY DISTRICT.

Mr. Carter, Chairman of the Committee on Finance, presented a report transmitting certain forms of ground leases to be entered into and executed by the President and Clerk of the Board with Timothy Carroll, Herman Fandry, Frank Borkowski, George Nagel, Joseph Bumberg, Leo Gotz and Patrick Sullivan, for the lease of lands

owned by the District along the banks of the Main Channel.

The following is the report:

CHICAGO, March 18, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance herewith presents certain forms of ground leases to be executed by the District with the parties hereinafter mentioned for the lease of lands owned by the District along the banks of the Main Channel. The lands rented out are to be used for farming and grazing purposes. The following are here submitted for approval:

To Timothy Carroll, the land hereinafter described, at an annual rental of \$52.50 per annum, payable in advance. Said land is described as follows:

A tract of land containing fifteen acres more or less, situate in the northwest quarter of Section fourteen (14), Township thirty-seven North, Range eleven East of the Third Principal Meridian, and lying between the northerly reserve line of the Illinois and Michigan Canal, and a line parallel to and two hundred feet distant from the southerly line of the Main Drainage Channel of the Sanitary District of Chicago; the above described parcel of land falling within the limit of Contract Section 5 of the Sanitary District of Chicago and is in the County of DuPage and State of Illinois, said lease also contains a clause giving the said Carroll an option of renewing said lease annually for a period of five years from the first day of February, 1901.

To Herman Fandry, the land hereinafter described at an annual rental of \$24.50 per annum, payable in advance. Said land is described as follows:

Lots three (3) and four (4) of the subdivision of Lot thirteen (13) in Carrington's Subdivision of the south half north of river, of Section six (6), Township thirty-seven North, Range twelve East of the Third Principal Meridian, lying north of the Desplaines River and south of the southerly right of way line of the Chicago, Santa Fe and California Railway Company, in Cook County, State of Illinois, containing seven acres more or less.

To Frank Borkowski, the land hereinafter described, at an annual rental of

\$70.00 per annum, payable in advance. Said land is described as follows:

A strip of land containing twenty acres more or less in Sections fifteen (15) and sixteen (16), Township thirty-seven North, Range eleven, East of the Third Principal Meridian, otherwise described as a strip of land lying between a line one hundred and fifty feet distant from, measured at right angles in a southerly direction and parallel to, the south bank of the new diversion of the Desplaines River, and a line two hundred feet distant from, measured at right angles in a southerly direction and parallel to, the right bank of the Main Drainage Channel of the Sanitary District of Chicago in contract Section six (6), in Cook County, State of Illinois.

To George Nagel, the land hereinafter described, at an annual rental of \$105.00, payable in advance. Said land being described as follows:

A strip of land in contract Section six (6) of the Sanitary District of Chicago, lying between the westerly reserve line of the Illinois and Michigan Canal and a line parallel to and two hundred feet distant from the southerly line of the Main Drainage Channel of the Sanitary District of Chicago, containing thirty acres, in the County of Cook and State of Illinois.

To Joseph Bumberg, the land hereinafter described, at an annual rental of \$35.00, payable in advance. Said land being described as follows:

A tract of land containing ten acres and situate in the west half of Section five (5), Township thirty-seven North, Range twelve, east of the Third Principal Meridian, lying between the westerly reserve line of the Illinois and Michigan Canal and a line parallel to and two hundred feet distant from the southerly line of the Main Drainage Channel of the Sanitary District of Chicago, the above described tract of land lying within the limits of contract Section one of the Sanitary District of Chicago, in the County of Cook and State of Illinois.

To Leo Gotz, the lands hereinafter described, at an annual rental of \$35.00, pay-

able in advance, said land being described as follows:

That part of the northeast quarter of Section twelve (12), Township thirty-eight (38) North, Range twelve (12), East of the Third Principal Meridian, lying north and east of the Desplaines River and south of the southerly line of the right of way of the Chicago, Santa Fe and California Railway Company, containing ten acres, more or less.

To Patrick C. Sullivan, the lands hereinafter described, at a rental of \$70.00 per annum, payable in advance, said lands being described as follows:

That part of the southeast quarter of the northeast quarter of Section twelve (12), Township thirty-eight (38) North, Range twelve (12), East of the Third Principal Meridian, lying north of the line two hundred (200) feet distant from (measured at right angles in a northerly direction) and parallel to the north bank of the Main Drainage Channel and south of the south bank of the old channel of the Desplaines River, containing 13.5 acres, more or less. Also that part of the northeast quarter of Section twelve (12), Township thirty-eight (38) North, Range twelve (12), East of the Third Principal Meridian, lying south of a line two hundred (200) feet distant from (measured at right angles in a southerly direction) and parallel to the levees south of the new River Diversion, and northerly and westerly of the northerly and westerly bank of the old channel of the Desplaines River; containing 22.7 acres, more or less. Twenty acres of the above described land being tillable land, situate in the County of Cook and State of Illinois.

That said leases are in conformity with the form of lease heretofore adopted by the Board of Trustees for use in cases as above.

The Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to execute on behalf of the District said leases to the parties respectively as above set forth for the lands as above described, when each of said parties shall on his part have executed the same and complied with the terms and conditions thereof, which may be deemed

necessary as conditions precedent to the execution of said leases.

Respectfully submitted,

(Signed) Z. R. CARTER,  
Chairman.  
WM. H. BAKER,  
FRANK WENTER,  
THOMAS J. WEBB,  
ALEX. J. JONES,  
Committee on Finance.

(Four enclosures.)

The following are the forms of leases submitted:

#### TERMS OF LEASE TO GEORGE NAGEL.

*This Indenture*, Made this first (1st) day of March, in the year of our Lord one thousand nine hundred and one (1901), between the Sanitary District of Chicago, a corporation organized and existing under the laws of the State of Illinois, party of the first part, and George Nagel, of Cook County, State of Illinois, party of the second part:

*Witnesseth*, That the said party of the first part, for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, his executors, administrators and assigns, has demised and leased to said party of the second part all those premises situate, lying and being in the County of Cook and the State of Illinois, known and described as follows, to wit: A strip of land in Contract Section Six (6) of the Sanitary District of Chicago, lying between the westerly reserve line of the Illinois and Michigan Canal and a line parallel to and two hundred (200) feet distant from the southerly line of the Main Drainage Channel of the Sanitary District of Chicago, containing thirty (30) acres, excepting therefrom the main drainage channel of the Sanitary District of Chicago and a strip of land two hundred (200) feet wide on each side of said channel and adjacent thereto.

To have and to hold the above described premises, with the appurtenance, unto the said party of the second part, his executors, administrators and assigns, from the first (1st) day of March in the year of our Lord one thousand nine hundred and one (1901), for, and during, and until February twenty-eighth (28th), one thousand nine hundred and two (1902).

It is further expressly covenanted and agreed, however, by and between the parties aforesaid, that said party of the first part, its successors or assigns, reserves to itself the right, at any time, at its election, to declare said lease terminated and, either

with or without process of law, and using such force as may be necessary in so doing, to re-enter said demised premises and again repossess and enjoy said premises as in its first and former state. Said party of the first part hereby covenants and agrees, in case it does terminate this lease as above provided, and for no cause given by said party of the second part, to pay to said party of the second part such sum of money as shall be appraised as damages caused by such termination of this lease, said damages to be appraised by a board of three arbitrators, one to be appointed by the party of the first part and one by the party of the second part, and said two so appointed to choose a third one. The award of said Board of Arbitrators to be final and binding upon both parties to this lease.

And the said party of the second part, in consideration of the leasing of the premises aforesaid by the said party of the first part to the said party of the second part, does covenant and agree with said party of the first part, its successors and assigns, to pay the said party of the first part, as rent for said demised premises, at the office of said first party in Chicago the sum of one hundred and five (\$105.00) dollars per annum, payable in advance. The said party of the first part further reserves the right to go upon said property at any time for surveying or any other corporate uses which said party of the first part may desire to subject said property to. It is further agreed by the said party of the second part that if at the time of making the survey as provided for herein it is discovered that there is more tillable land in said tract than is provided for in the description of the premises herein leased, then upon due notice thereof the said party of the second part shall pay to the said first party the sum of three and fifty one-hundredth dollars per acre for all such tillable land in excess of that herein described.

*It is Further Covenanted and Agreed* by the said party of the second part that he will pay or cause to be paid all water rates and all taxes and assessments that may be laid, charged or assessed on said demised premises, pending the existence of this lease, or if at any time after any tax, assessment or water rate shall have become due or payable, the party of the second part, or his legal representatives, shall neglect to pay such water rates, tax or assessment, it may be lawful for the party of the first part to pay the same at any time thereafter, and the amount of any and all such payments so made by the party of the first part shall be deemed and taken, and are hereby declared to be so much additional and further rent for the above demised premises, due from and payable by the party of the second part; and may be collected in the same manner, by distress or otherwise, as is hereinafter provided for the collection of other rents to grow due thereon.

And it is expressly understood and agreed by the said party of the second part

hereto, for his heirs, executors, administrators and assigns, that the whole amount of rent reserved and agreed to be paid for said above demised premises, and each and every installment thereof, shall be and is hereby declared to be a valid and first lien upon any and all buildings and improvements on said premises, or that may at any time be erected, placed or put on said premises by said party of the second part, his heirs, executors and administrators or assigns, and upon his or their interests in this lease and the premises hereby demised; and that whenever and as often as any installment of rent or any other amount above declared to be deemed and taken as rent shall become due and remain unpaid for one day after the same becomes due and payable, said party of the first part, its successors, agent, attorney or assigns, may sell at public auction, to the highest bidder for cash, after having first given ten days' notice of the time and place of such sale in some newspaper published in Cook County, all the buildings and improvements on said premises, and all the right, title and interest acquired by said party of the second part under this lease to the premises herein described, and as the attorney of said party of the second part—hereby irrevocably constituted—may make to the purchaser or purchasers thereof a suitable and proper transfer, bill of sale or deed of the same, and out of the proceeds arising from such sale, after first paying all costs and expenses of such sale, including commissions and attorney's fees, retain to said first party the whole amount due on said lease up to the date of such sale, rendering the surplus (if any) to said party of the second part, his heirs, executors, administrators, agent, attorney or assigns, which sale shall be a perpetual bar to and against all rights and equities of said party of the second part, his heirs and assigns, in and to the property sold.

*It is expressly covenanted and agreed by said party of the second part, his executors, administrators and assigns, that he will use said above described premises for farming purposes only, and that he will not use said premises, or suffer them to be used, for the sale of wines, ales, liquors, or any other intoxicating beverages whatsoever; or for the purpose of gambling in any manner whatsoever.*

*And the party of the second part further covenants with the party of the first part that he will keep said demised premises in a clean and wholesome condition, in accordance with the ordinances and regulations of the County of Cook and directions of the health officers, and that, at the expiration of the time in this lease mentioned he will yield up said premises to the party of the first part in as good condition as when the same were entered upon by the party of the second part, loss by fire or inevitable accident and ordinary wear excepted.*

*It is further agreed by the party of the second part that neither he nor his legal*

*representatives will underlet said premises, or any part thereof, or assign this lease, without the written assent of said party of the first part first had and obtained thereto, nor use or suffer them to be used for any other purpose than that above mentioned.*

*It is expressly understood and agreed by and between the parties aforesaid, that if the rent above reserved, or any part thereof, shall be behind or unpaid on the day of payment whereon it ought to be paid, as aforesaid, or if default shall be made in any of the covenants herein contained to be kept by the party of the second part, his executors, administrators or assigns, it shall be lawful for the party of the first part, or its successors, agent, attorney or assigns, at its election, to declare said term ended, and into the said demised premises, or any part thereof, either with or without process of law, to re-enter, and the party of the second part, or any other person or persons occupying, in or upon the same, to expel, remove and put out, using such force as may be necessary in so doing, and the said premises again to repossess and enjoy as of its first and former estate; and to distrain for any rent that may be due thereon upon any property belonging to the party of the second part, whether the same be exempt from execution and distress by law or not; and the party of the second part, in that case, hereby waives all legal rights which he now has, or may have, to hold or retain any such property under any exemption laws now in force in this State, or in any other way, meaning and intending hereby to give the party of the first part, its successors, agent, attorney or assigns, a valid and first lien upon, and all the goods, chattels or other property belonging to the party of the second part, as security for the payment of said rent, in manner aforesaid, anything hereinbefore contained to the contrary notwithstanding. And if at any time said term shall be ended at such election of said party of the first part, its successors, agent, attorney or assigns, as aforesaid, or in any other way, the party of the second part does hereby covenant and agree to surrender and deliver up said above described premises and property, peaceably, to the said party of the first part, its successors, agent, attorney or assigns, immediately upon the determination of said term as aforesaid; and if he shall remain in possession of the same one day after notice of such default, or after the termination of this lease in any of the ways above named he shall be deemed guilty of a forcible detainer of the premises under the statute, and shall be subject to all the conditions and provisions above named, and to eviction and removal, forcibly or otherwise, with or without process of law, as above stated.*

*And it is Further Understood and Agreed by the said party of the second part that neither the right given in this lease to said party of the first part to collect the rent that may be due under the terms of this lease by sale, or any proceedings under the*

same, shall in any way affect the right of said party of the first part to declare this lease void and the term hereby created ended, as above provided, upon default made by said party of the second part.

And the said party of the second part hereby waives his right to any notice from said party of the first part of its election to declare this lease at an end, under any of its provisions, or any demand for the payment of rent, or the possession of premises leased herein; but the simple fact of the non-payment of the rent reserved shall constitute a forcible detainer as aforesaid.

The said party of the second part further agrees not to remove any buildings or other improvements from said premises without written consent of said party of the first part, and that the said second party shall pay and discharge all costs and attorney's fees and expenses that shall arise from enforcing the covenants of this indenture by the party of the first part.

*It is Further Understood and Agreed* that all the conditions and covenants contained in this lease shall be binding upon the heirs, executors, administrator, successors and assigns of the parties to these presents, respectively.

*In Witness Whereof*, the said parties have hereunto set their hands and seals the day and year first above written.

#### TERMS OF LEASE TO JOSEPH BUMBERG.

*This Indenture*, Made this first (1st) day of March, in the year of our Lord one thousand nine hundred and one (1901), between the Sanitary District of Chicago, a corporation organized and existing under the laws of the State of Illinois, party of the first part, and Joseph Bumberg, of Willow Springs, Cook County, Illinois, party of the second part:

*Witnesseth*, That the said party of the first part, for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, his executors, administrators and assigns, has demised and leased to the said party of the second part all those premises situate, lying and being in the County of Cook and State of Illinois, known and described as follows, to-wit: A tract of land containing ten (10) acres and situate in the west half of Section five (5), Township thirty-seven (37) North, Range twelve (12), east of the Third Principal Meridian, between the westerly reserve line of the Illinois and Michigan Canal and a line parallel to and two hundred (200) feet distant from the southerly line of the Main Drainage Channel of the Sanitary District of Chicago. The above described tract of land lying also within the limits of Contract Section one (1) of the Sanitary District of Chicago in Cook County and State of Illinois, excepting therefrom the Main Drain-

age Channel of the Sanitary District of Chicago and a strip of land two hundred (200) feet wide on each side of said channel and adjacent thereto.

*To Have and to Hold* the above described premises, with the appurtenances, unto the said party of the second part, his executors, administrators and assigns, from the first (1st) day of April, in the year of our Lord one thousand nine hundred and one (1901) for, and during and until March thirty-first (31st), A. D. one thousand nine hundred and one (1901).

And the said party of the second part, in consideration of the leasing of the premises aforesaid by the said party of the first part to the said party of the second part, does covenant and agree with said party of the first part, its successors and assigns, to pay the said party of the first part, as rent for said demised premises, at the office of said first party in Chicago, the sum of thirty-five (\$35.00) dollars per annum, payable in advance.

*(The remaining terms of this lease are identical with those of the lease to George Nagel, as printed on page 7101 of the Proceedings.)*

#### TERMS OF LEASE TO PATRICK C. SULLIVAN.

*This Indenture* made this first (1st) day of March, in the year of our Lord one thousand nine hundred and one (1901) between the Sanitary District of Chicago, a corporation organized and existing under the laws of the State of Illinois, party of the first part, and Patrick C. Sullivan, of Lyons, Cook County, Illinois, party of the second part:

*Witnesseth*, that the said party of the first part, for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, his executors, administrators and assigns, has demised and leased to the said party of the second part all those premises situate, lying and being in the County of Cook and State of Illinois, known and described as follows, to-wit: That part of the southeast quarter of the northeast quarter of Section twelve (12), Township thirty-eight (38) North, Range twelve (12), east of the Third (3rd) Principal Meridian, lying north of a line two hundred (200) feet distant from (measured at right angles in a northerly direction) and parallel to the north bank of the main Drainage channel, and south of the south bank of the old channel of the Desplaines River, containing 18.5 acres, more or less. Also that part of the northeast quarter of Section twelve (12), Township thirty-eight (38) North, Range twelve (12), East of the Third Principal Meridian, lying south of a line two hundred (200) feet distant from (measured at right angles in a southerly direction), and parallel to the levees south of the new river diversion, and northerly and westerly of the north-

erly and westerly bank of the old channel of the Desplaines River, containing 22.7 acres, more or less. Twenty (20) acres of the above described land being tillable land, excepting therefrom the main drainage channel of the Sanitary District of Chicago and a strip of land two hundred (200) feet wide on each side of said channel and adjacent thereto.

To have and to hold the above described premises, with the appurtenances, unto the said party of the second part, his executors, administrators and assigns, from the first (1st) day of March, in the year of our Lord one thousand nine hundred and one (1901) for and during and until February twenty-eighth (28th) A. D. one thousand nine hundred and two (1902).

And the said party of the second part, in consideration of the leasing of the premises aforesaid by the said party of the first part to the said party of the second part, does covenant and agree with said party of the first part, its successors and assigns, to pay the said party of the first part, as rent for said demised premises, at the office of said first party, in Chicago, the sum of seventy (\$70.00) dollars per annum, payable in advance.

(The remaining terms of this lease are identical with those of the lease to George Nagel, as printed on page 7101 of the Proceedings.)

#### TERMS OF LEASE TO FRANK BORKOWSKI.

This Indenture, made this first (1st) day of March, in the year of our Lord one thousand nine hundred and one (1901) between the Sanitary District of Chicago, a corporation organized and existing under the laws of the State of Illinois, party of the first part, and Frank Borkowski of Cook County, Illinois, party of the second part:

Witnesseth, that the said party of the first part, for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, his executors, administrators and assigns, has demised and leased to the said party of the second part all those premises situate, lying and being in the County of Cook and State of Illinois, known and described as follows, to wit: A strip of land containing twenty (20) acres more or less in Sections fifteen (15) and sixteen (16), Township thirty-seven (37), North Range eleven (11), east of the third Principal Meridian otherwise described as a strip of land lying between a line one hundred and fifty (150) feet distant from (measured at right angles in a southerly direction and parallel to the south bank of the new diversion of the Desplaines River, and a line two hundred (200) feet distant from (measured at right angles in a northeasterly direction and parallel to the north bank of the Main Drainage Channel of the Sanitary District of Chicago in Contract Section six (6) of said Sanitary District, excepting therefrom

the main drainage channel of the Sanitary District of Chicago and a strip of land two hundred (200) feet wide on each side of said channel and adjacent thereto.

To Have and To Hold the above described premises, with the appurtenances, unto the said party of the second part, executors, administrators and assigns, from the first (1st) day of March in the year of our Lord one thousand nine hundred and one (1901) for, and during and until February twenty-eighth (28th) A. D. one thousand nine hundred and two (1902).

And the said party of the second part, in consideration of the leasing of the premises aforesaid by the said party of the first part to the said party of the second part, does covenant and agree with said party of the first part, its successors and assigns, to pay the said party of the first part, as rent for said demised premises, at the office of said first party in Chicago the sum of seventy (\$70.00) dollars per annum, payable in advance.

(The remaining terms of this lease are identical with those of the lease to George Nagel as printed on page 7101 of the Proceedings.)

#### TERMS OF LEASE TO LEO GOTZ.

This Indenture, Made this first (1st) day of March, in the year of our Lord one thousand nine hundred and one (1901), between the Sanitary District of Chicago, a corporation organized and existing under the laws of the State of Illinois, party of the first part, and Leo Gotz of Riverside, Cook County, Illinois, party of the second part:

Witnesseth, That the said party of the first part, for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, his executors, administrators and assigns, has demised and leased to the said party of the second part all those premises situate, lying and being in the County of Cook and State of Illinois, known and described as follows, to wit: That part of the northeast quarter of Section twelve (12), Township thirty-eight (38), North Range twelve (12), east of the Third (3rd) Principal Meridian, lying north and east of the Desplaines River and south of the southerly line of the Right of Way of the Chicago, Santa Fe & California Railway Company, containing ten (10) acres, more or less, excepting therefrom the main drainage channel of the Sanitary District of Chicago and a strip of land two hundred (200) feet wide on each side of said channel and adjacent thereto

To have and to hold the above described premises, with the appurtenances, unto the said party of the second part, his executors, administrators and assigns, from the first (1st) day of March in the year of our Lord one thousand nine hundred and one (1901), for, and during, and until February

twenty-eighth A. D. one thousand nine hundred and two (1902).

And the said party of the second part, in consideration of the leasing of the premises aforesaid by the said party of the first part to the said party of the second part, does covenant and agree with said party of the first part, its successors and assigns, to pay the said party of the first part, as rent for said demised premises, at the office of said first party in Chicago, the sum of thirty-five (\$35.00) dollars per annum, payable in advance.

*(The remaining terms of this lease are identical with those of the lease to George Nagel, as printed on page 7101 of the Proceedings.)*

#### TERMS OF LEASE TO TIMOTHY CARROLL.

"*This Indenture*. Made this first (1st) day of February, in the year of our Lord one thousand nine hundred and one, between the Sanitary District of Chicago, a corporation organized and existing under the laws of the State of Illinois, party of the first part, and Timothy Carroll, of Sag Bridge in Cook County, Illinois, party of the second part.

*Witnesseth*. That the said party of the first part, for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, his executors, administrators and assigns, has demised and leased to the said party of the second part all those premises situate, lying and being in the County of Du Page and State of Illinois, known and described as follows, to-wit: A tract of land containing fifteen (15) acres more or less, situate in the northwest quarter of Section fourteen (14), Township thirty-seven (37) North, Range eleven (11) east of the Third (3d) Principal Meridian and lying between the northerly reserve line of the Illinois and Michigan Canal and a line parallel to and two hundred (200) feet distant from the southerly line of the Main Drainage Channel of the Sanitary District of Chicago, the above described parcel of land falling within the limit of Contract Section five (5) of the Sanitary District of Chicago, in the County of Du Page and State of Illinois, excepting therefrom the Main Drainage Channel of the Sanitary District of Chicago and a strip of land two hundred (200) feet wide on each side of said channel and adjacent thereto.

*To Have and to Hold* the above described premises, with the appurtenances, unto the said party of the second part, his executors, administrators and assigns, from the first (1st) day of February, in the year of our Lord one thousand nine hundred and one, for and during and until January thirty-first (31st), A. D. one thousand nine hundred and two (1902).

And the said party of the second part, in consideration of the leasing of the premises aforesaid by the said party of the first

part to the said party of the second part, does covenant and agree with said party of the first part, its successors and assigns, to pay the said party of the first part, as rent for said demised premises, at the office of said first party, in Chicago, the sum of fifty-two and fifty one hundredths (\$52 50) dollars per annum payable in advance.

The said party of first part further reserves the right to go upon said property at any time for surveying or for any other corporate use which said party of first part may desire to subject said property to.

It is further covenanted and agreed by said first party that said second party shall have the option of extending this lease from year to year for a period of five years from February 1st A. D. 1901, subject to the same covenants and agreements herein expressed, but it is expressly understood and agreed that said option is given subject to the right of said first party, as above reserved, to enter upon said property or terminate this lease as herein provided.

It is further agreed by the said party of the second part that if at the time of making the survey, as provided for herein, it is discovered that there is more tillable land in said tract than is provided for in the description of the premises herein leased then upon due notice thereof the said party of the second part shall pay to the said party of the first part the sum of three and fifty one hundredths dollars per acre for all such tillable land in excess of that herein described.

And the party of the second part further covenants with the party of the first part that he will keep said demised premises in a clean and wholesome condition, in accordance with the ordinances and regulations of the County of DuPage and directions of the health officers, and that, at the expiration of the time in this lease mentioned will yield up said premises to the party of the first part in as good condition as when the same were entered upon by the party of the second part, less by fire or inevitable accident and ordinary wear accepted.

*(The remaining terms of this lease are identical with those of the lease to George Nagel, as printed on page 7101 of the Proceedings.)*

#### TERMS OF LEASE TO HERMAN FANDRY.

*This Indenture*. Made this first (1st) day of March, in the year of our Lord one thousand nine hundred and one (1901), between the Sanitary District of Chicago, a corporation organized and existing under the laws of the State of Illinois, party of the first part, and Herman Fandry of Cook County, Illinois, party of the second part:

*Witnesseth*. That the said party of the first part, for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, his exe-

cutors, administrators and assigns, has demised and leased to said party of the second part all those premises situate, lying and being in the County of Cook and State of Illinois, known and described as follows, to-wit:

Lots three (3) and four (4) of subdivision of Lot thirteen (13) in Carrington's subdivision of the south half north of River Section six (6), Township thirty-seven (37) North, Range twelve (12) east of the Third Principal Meridian, lying north of the Desplaines River and south of the southerly right of way line of the Chicago, Santa Fe and California Railway Company, in Cook County and State of Illinois, containing seven (7) acres more or less; excepting therefrom the main drainage channel of the Sanitary District of Chicago and a strip of land two hundred (200) feet wide on each side of said channel and adjacent thereto.

*To Have and to Hold* the above described premises, with the appurtenances, unto the said party of the second part, his executors, administrators and assigns, from the second day of January, in the year of our Lord one thousand nine hundred and one (1901), for, during and until January first (1st), A. D. one thousand nine hundred and two (1902).

And the said party of the second part, in consideration of the leasing of the premises aforesaid by the said party of the first part to the said party of the second part, does covenant and agree with said party of the first part, its successors and assigns, to pay the said party of the first part, as rent for said demised premises, at the office of said first party in Chicago, the sum of twenty-four and fifty one-hundredth dollars per annum, payable in advance.

*(The remaining terms of this lease are identical with those of the lease to George Nagel, as printed on page 7101 of the Proceedings.)*

Mr. Carter, seconded by Mr. Baker, moved that the report be adopted.

The roll being called, the report was adopted.

Yeas—Messrs. Baker, Carter, Jones, Webb and Wenter—Five.

Nays—None.

REPORT IN REFERENCE TO ASSIGNMENT OF THE MASSILLON BRIDGE COMPANY'S CONTRACT FOR THE CONSTRUCTION OF THE SUPERSTRUCTURE OF BRIDGE ACROSS THE CHICAGO RIVER AT ASHLAND AVENUE TO THE CHICAGO BRIDGE AND IRON COMPANY.

Mr. Baker, member of the Committee on Engineering, presented a report submitting drafts of the consent of the Sanitary District to the assignment of the Massillon

Bridge Company to the Chicago Bridge Company of the contract dated February 13, 1901, for the construction of a bascule bridge across the Chicago River at Ashland Avenue; and recommending that the President and the Clerk of the Board be directed to execute said drafts.

The following is the report:

CHICAGO, March 20, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering respectfully reports that it has carefully considered the proposed drafts herewith submitted by the Attorney, and recommends that your Honorable Body direct the President and Clerk of the District to execute the said proposed draft of the consent of the Sanitary District of Chicago to the assignment by the Massillon Bridge Company to the Chicago Bridge and Iron Company to the contract dated February 13, 1901, for the construction of a bascule bridge across the West Fork of the South Branch of the Chicago River on the line of Ashland Avenue; the same to be delivered by the President upon all papers relating thereto being properly executed by the parties.

Respectfully submitted,

(Signed) Z. R. CARTER,  
FRANK WENTER,  
THOMAS J. WEBB,  
WM. H. BAKER,  
ALEX J. JONES,  
*Committee on Engineering.*

(Two enclosures).

The following is the draft:

"CHICAGO, March 11th, 1901.

For value received, the Massillon Bridge Company hereby sells, assigns and transfers unto the Chicago Bridge and Iron Company all its rights and interests of every character under the foregoing contract, and authorizes the Sanitary District of Chicago to pay to said assignee all moneys due or to become due thereunder; and the said Chicago Bridge and Iron Company, in consideration of such assignment, hereby assumes and agrees to perform each and all of the undertakings in said contract provided to be performed by said Massillon Bridge Company, and further covenants and agrees to be bound by all and singular, the covenants and agreements in the said contract, to the same extent as if it, the Chicago Bridge and Iron Company had, in fact, executed said contract; meaning and intending hereby to



adopt all of the provisions and conditions of said contract;

Provided, however, that this assignment and agreement shall be of no force until the same is assented to and accepted by said Sanitary District of Chicago.

*The Massillon Bridge Co.,*

By A. J. SPRAGUE,  
*President.*

Attest:

W. C. JACOBS,  
*Secretary.*

*Chicago Bridge & Iron Co.,*

By HORACE E. HORTON,  
*President.*

Attest:

HENRY W. WILDER,  
*Secretary.*

The Sanitary District of Chicago hereby accepts and consents to the foregoing assignment.

*Sanitary District of Chicago,*

By ALEX. J. JONES,  
*President of its Board of Trustees.*

Attest:

A. R. PORTER,  
*Clerk,*

*Sanitary District of Chicago."*

Approved:

JAMES TODD,  
*Attorney.*

Mr. Carter, seconded by Mr. Wenter, moved that the report be adopted.

The roll being called, the report was adopted.

*Yeas*—Messrs. Baker, Carter, Cloldt, Jones, Webb and Wenter—Six.

*Nays*—None.

APPROVAL OF BOND OF THE CHICAGO BRIDGE AND IRON COMPANY ON ASSIGNMENT OF THE MASSILLON BRIDGE COMPANY'S CONTRACT FOR CONSTRUCTION OF SUPERSTRUCTURE OF BRIDGE ACROSS THE CHICAGO RIVER AT ASHLAND AVENUE.

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee, transmitting the bond of the Chicago Bridge and Iron Company on the assignment to said company by the Massillon Bridge Company, of the contract for the construction of the superstructure of

the bridge at Ashland Avenue, said bond being in the sum of \$35,000.00, with the City Trust, Safe Deposit and Surety Company of Philadelphia as surety; and recommending that the bond of the Massillon Bridge Company, approved February 20, 1901, be cancelled and released, and that the bond of the Chicago Bridge and Iron Company be approved.

The following is the report:

CHICAGO, March 20, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance begs leave to report that it has examined the bond given by the Chicago Bridge and Iron Company on the assignment to it by the Massillon Bridge Company, of the contract dated February 13th, 1901, for the construction of a bascule bridge across the West Fork of the South Branch of the Chicago River on the line of Ashland Avenue; said bond being in the sum of thirty-five thousand (\$35,000.00) dollars with the City Trust, Safe Deposit and Surety Company of Philadelphia, as surety.

Your Committee finds said bond to be executed in proper form and hereby approves the surety on said bond, and recommends that the same be approved by your Honorable Body.

Your Committee further recommends that the bond of the said Massillon Bridge Company, heretofore presented and approved by your Honorable Body at a meeting held February 20, 1901 (page 7002 of the Proceedings), be cancelled and released, and that the bond of the Chicago Bridge and Iron Company, above referred to, be substituted therefor.

Respectfully submitted,

(Signed.) Z. R. CARTER,  
*Chairman.*

WM. H. BAKER,  
FRANK WENTER,  
THOMAS J. WEBB,  
ALEX. J. JONES.  
*Committee on Finance.*

The following is the bond:

*Know all Men by these Presents, That we, the Chicago Bridge and Iron Company, a corporation of Illinois, assignee and successor of the Massillon Bridge Company, a corporation of the State of Ohio, as prin-*

cipal, and The City Trust, Safe Deposit and Surety Company of Philadelphia, as surety, are held and firmly bound unto the Sanitary District of Chicago in the penal sum of thirty-five thousand (\$35,000) dollars lawful money of the United States for the payment of which sum of money well and truly to be made, we bind ourselves, our heirs, executors and administrators, jointly and severally firmly by these presents.

Sealed with our seals and dated this 14th day of March A. D. 1901.

*The Condition of the Above Obligation Is Such,* That, whereas, the Massillon Bridge Company, entered into a certain contract with the Sanitary District of Chicago, bearing date the 18th day of February, A. D. 1901, for doing all the work and furnishing all the materials, tools, labor, appliances and appurtenances necessary for the erection and completion of the superstructure of steel, machinery and electrical equipment, with the necessary woodwork or floor timber for the highway bridge known and distinguished as the Page Bascule Lift Bridge for the Sanitary District of Chicago, crossing the South Branch of the Chicago River at Ashland Avenue in the City of Chicago; and, whereas, the said Massillon Bridge Company on the 11th day of March, 1901, for value received, sold, assigned and transferred unto the said Chicago Bridge and Iron Company all its rights and interests of every character under its said contract of February 18th, A. D. 1901, with the said Sanitary District of Chicago; and, whereas, the Chicago Bridge and Iron Company in consideration of such assignment assumed and agreed to perform each and all of the undertakings in said contract provided to be performed by said Massillon Bridge Company, and further covenants and agrees to be bound by all and singular the covenants and agreements in the said contract; and, whereas, the Sanitary District of Chicago has accepted and consented to the assignment by said Massillon Bridge Company of its contract with said Sanitary District of Chicago to the Chicago Bridge and Iron Company.

Now, if the said Chicago Bridge and Iron Company shall in all respects well and truly keep and perform the said contract on its part, in accordance with the terms thereof, and the plans and specifications therein contained and referred to, and in the time and manner therein prescribed, and, further, shall indemnify, keep and save harmless the Sanitary District of Chicago against all liabilities, judgments, costs, damages and expenses which may in any wise come against said Sanitary District in consequence of the granting of such contract, or which may in any wise result from the carelessness or neglect of said Chicago Bridge and Iron Company, its agents, employees or workmen in any respect whatever, or which may result on account of any infringement of any patent by reason of the material, machinery, de-

vice or apparatus used in the performance of said contract, and moreover shall pay to said Sanitary District any sum or sums of money determined by the Engineer to be due said Sanitary District by reason of any failure or neglect in the performance of the requirements of said contract, and shall pay all claims and demands whatsoever, which may accrue to each and every person who shall be employed by said Chicago Bridge and Iron Company in or about the performance of said contract, then this obligation to be null and void, otherwise to remain in full force and effect.

And it is hereby expressly understood and agreed, and made a condition hereof, that any judgment rendered against said Sanitary District of Chicago, as aforesaid, in any suit for damages occasioned by carelessness or neglect of said Chicago Bridge and Iron Company, its agents, employees or workmen in the premises, when notice of the pendency of such suit shall have been given said Chicago Bridge and Iron Company shall be conclusive against each and all parties to this obligation, as to amount, liability and all other things pertaining thereto.

*Chicago Bridge and Iron Co.,*

By GEO. F. HORTON,

*Vice-President.*

[SEAL]

HENRY W. WILDER,

*Secretary.*

*The City Trust, Safe Deposit  
and Surety Company of Phila-  
delphia.*

[SEAL]

By JOSEPH F. BOWEN,

*Resident Vice-President.*

Attest:

LOUIS L. DENT,

*Resident Assistant Secretary.*

Approved March 20, 1901.

A. R. PORTER,

*Clerk.*

Mr. Carter, seconded by Mr. Wenter, moved that the report be adopted and the recommendation contained therein concurred in.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Carter, Cloidt, Jones, Webb and Wenter—Six.

*Nays*—None.

COMMUNICATION FROM M'ARTHUR BROS.  
COMPANY.

The Clerk presented a communication from the McArthur Brothers Company,

contractors, requesting that the sureties on its bonds on the contract for the substructure of the bridge of the A. T. & S. F. Ry. on Section "N," and the bond on the contract for the substructure of bridge of the C. M. & N. R. Co. on Section "N," in the sum of \$1,000 00 each, be cancelled and released.

By unanimous consent the communication was referred to the Committee on Finance.

COMMUNICATION FROM WM. H. CHADWICK.

The Clerk presented a communication from Wm. H. Chadwick, President of the Chicago Commercial Association, with accompanying plan for the erection of a bridge at Washington Street, prepared by Mr. Ralph Modjeski, and expressing the hope that in the event the city authorities will agree to remove the present center pier bridge at Washington Street, that the Board of Sanitary Trustees will erect a bridge in its place on the general plan and scale recommended by Mr. Modjeski.

On motion of Mr. Carter, the communication and plan was referred to the Committee on Engineering.

COMMUNICATION FROM W. W. NORTH.

The Clerk presented a communication from W. W. North, of Lockport, Illinois, requesting information regarding the terms on which a twenty-acre tract of land can be leased for pasturage purposes, said land being part of Section 27 and 28.

By unanimous consent, the communication was referred to the Committee on Finance.

ORDER IN REFERENCE TO CLOSING OFFICES OF THE SANITARY DISTRICT AT TWELVE O'CLOCK, NOON, ON SATURDAYS.

Mr. Baker presented the following order:

*Ordered*, That the offices of the Sanitary District of Chicago be and the same are hereby ordered closed at twelve (12) o'clock noon on every Saturday, beginning with April 6, 1901, until otherwise ordered by the Board of Trustees, and that a half holiday be and the same is hereby extended to all the employees of said Sanitary District; and be it further

*Ordered*, That the Chief Engineer of the Sanitary District be and is hereby ordered, authorized and empowered to suspend the above order, so far as the same applies to employees in the field, whenever, in the judgment of said Chief Engineer, their services may be required, and in such case the Chief Engineer may substitute the equivalent of said Saturday half-holiday at such other times as the interest of the service may permit.

By unanimous consent, the above order was referred to the Committee on Labor.

ADJOURNMENT.

On motion of Mr. Carter, the Board adjourned.

*A. R. Porter,*  
CLERK



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

MARCH 27, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Twenty-third Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, on Wednesday, March 27, 1901, at 2 o'clock P. M.

The President, Mr. Jones, took the

chair, and the meeting being called to order, there were then

*Present* — Messrs. Carter, Cloidt, Jones, Legner, Smyth, Webb and Wenter—Seven.

*Absent*—Messrs. Baker and Braden—Two.

MINUTES.

On motion of Mr. Smyth, the minutes of the regular meetings held March 13 and 20, 1901, were approved as printed.

VOUCHERS.

The Clerk presented the following vouchers:

PAY ROLLS.

Engineering Department (Chief Engineer's, March, 1901).....	\$ 2,989 58	
Engineering Department (Div. of Construction, March, 1901).....	2,556 25	
Engineering Department (Expert Commissioners, March, 1901).....	602 55	
	<hr/>	\$ 6,208 38
Clerical Department (Clerk's roll, March, 1901).....		983 33
Treasury Department (Treasurer's roll, March, 1901).....		375 00
Law Department (Attorney's roll, March, 1901).....		1,988 00

General Account (General roll, March, 1901).....	\$ 450 00	
General Account, (Special roll, March, 1901).....	133 00	
General Account, (Trustees' roll, March, 1901) .....	2,333 33	
		2,916 33
Police Department (Marshal's roll, March, 1901).....		1,649 95
Maintenance Account (Controlling Works roll, March, 1901).....	\$ 550 00	
Maintenance Account (Bridgeport Pumping Station, March, 1901).....	265 49	
		815 49
Total.....		\$ 14,826 48

On motion of Mr. Carter, seconded by Mr. Wenter, the vouchers, as read and shown above were approved and ordered paid.

*Yeas*—Messrs. Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Seven.

*Nays*—None.

#### ANNUAL REPORT OF THE LAW DEPARTMENT FOR YEAR ENDING DECEMBER 31, 1900.

The Clerk presented the Annual Report of the Law Department for the year ending December 31, 1900, which, by unanimous consent, was ordered printed in the Proceedings and placed on file.

The following is the report:

CHICAGO, January 1, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Complying with the rules of your Honorable Body, and in conformity with precedent, I have the honor to submit the Annual Report of the Law Department for the year ending December 31, 1900:

#### *Cases Disposed Of.*

People of the State of Illinois ex rel. versus Philip Knopf, County Clerk of Cook County, was a petition for mandamus to compel the County Clerk to extend a tax of  $1\frac{1}{2}$  per cent. in favor of the Sanitary District. The defendant refused to comply with this demand on the ground that under Section 49 of the Revenue Law he was required to scale down tax levy to .8907 of one (1) per cent. After the case had been argued before Judge Tuley on behalf of the petitioner, and during the argument of the counsel for the defendant, the Supreme Court held that said Section 49 was null and void. As soon as the decision was rendered the County Clerk confessed the petition, and agreed to levy the full tax, but the District thereafter, of its own volition, re-

bated 40 cents on the dollar, which made the assessment 1-10 per cent.

In the consolidated cases of the Canal Commissioners versus the Sanitary District, and the People of the State of Illinois, etc., versus the Sanitary District, appealed from the Circuit Court of Fulton County, the Supreme Court rendered an opinion, based on the petition of the Sanitary District, for a rehearing, overruling that part of its former decision, holding that the District had now power to remove the dams at Henry and Copperas Creek under any circumstances, and deciding that when the conditions justify the District would have the right to remove them.

In the case of the Sanitary District of Chicago, appellant, versus Bridget McGuirl, in the appellate Court, an opinion was handed down reversing the judgment entered in the Circuit Court against the District for seventeen thousand five hundred (\$17,500) dollars, which was more than twice the actual damage sustained by the plaintiff, and remanding the case for a new trial.

In the case of the City of Joliet versus the Sanitary District, in the Circuit Court of Will County, the city caused the issuance of an injunction preventing the defendant from removing the Jefferson Street bridge, unless taken down one-half at a time, and from removing the Cass Street bridge until the construction of the new Jefferson Street bridge could be completed. This injunction was dissolved on motion of the defendant, and it then proceeded to remove both bridges. The city authorities then prevented the District, by the use of their police force, from completing the demolition of their old bridges. An injunction was then issued upon a bill in chancery, filed by the Sanitary district, enjoining the City of Joliet and its officers from further interfering with this work. A settlement of all controversies was finally secured, whereby the city agreed not to further retard the work of the District providing the District would repair the Jackson

Street bridge, and also waive the payment of ten thousand (\$10,000) dollars due to it from the City of Joliet.

The case of *Mary T. Burke versus the Chicago National Bank, et al.*, in the Circuit Court of Cook County, was a bill for an injunction to prevent the Sanitary District from appropriating the funds necessary for the work of the special commission appointed by Governor Tanner. A demurrer to the bill was argued and sustained and the bill dismissed for want of equity. An appeal was prayed to the Appellate Court, but no proceedings were taken to secure a temporary injunction during the pendency of the appeal. The District authorized the payment of the necessary funds of the commission. If the injunction had been granted it would undoubtedly have delayed the opening of the Main Channel for at least a year until the necessary appropriation could be secured from the General Assembly. The decision of the lower court has since been reversed and the case remanded.

The case of *Charles Goerner versus the Sanitary District*, in the Circuit Court of Cook County, was reached before Judge Waterman. This is a suit for seventy-two thousand (\$72,000.00) dollars for damages to the land of the plaintiff caused by the overflow from the river diversion. After a trial lasting over two weeks a verdict was rendered awarding eight hundred (\$800.00) dollars to the plaintiff. Motions for new trials were entered by both parties, but finally withdrawn, and a judgment entered and satisfied in court.

*Sanitary District of Chicago vs. Louis Hutt*, Gen. No. 213462, Circuit Court of Cook County. A condemnation case.

*Belt Railway Co. of Chicago vs. The Sanitary District of Chicago*, Gen. No. 199046, in the Superior Court.

*Sanitary District of Chicago vs. Law et al.*, Gen. No. 206767, in the Circuit Court of Cook County.

*Commissioners of Highways of the Township of Lemont vs. The Sanitary District of Chicago*, Gen. No. 199601, in the Circuit Court of Cook County.

*Joseph Kampare vs. the City of Joliet et al.* in the Circuit Court of Will County.

*Canal Commissioners vs. the Sanitary District of Chicago et al.*, in the Supreme

Court of Illinois. Appeal from the Circuit Court of Fulton County.

*King for the use of Mitchell vs. the Sanitary District of Chicago*, Gen. No. 195279, in the Superior Court.

*J. J. McCaughey vs. the Sanitary District of Chicago et al.*, Gen. No. 179197, in the Superior Court.

*A. Hero vs. the Sanitary District of Chicago*, No. 8542, in the Appellate Court of First District.

*Bourke vs. the Sanitary District of Chicago*, No. 8543, in the Appellate Court of the First District.

*Chas. Goerner vs. the Sanitary District of Chicago*, Gen. No. 166547, in the Circuit Court of Cook County.

*A. Peterson vs. Harlev et al.*, No. 166891 in the Circuit Court of Cook County.

*John Lynch vs. Qualey Construction Company et al.*, Gen. No. 159807, in the Circuit Court of Cook County.

*Richard Free vs. the Sanitary District of Chicago*, Gen. No. 183681, in the Superior Court.

*Michael Gullford vs. Agnew & Co. et al.*, No. 174498, in the Circuit Court of Cook County.

*Lemont State Bank vs. Sanitary District of Chicago*, Gen. 196576, in the Superior Court.

*Weir, McKechney & Co. vs. the Sanitary District of Chicago*, Gen. No. 188300, in the Superior Court.

*Sanitary District of Chicago vs. The Chicago Terminal Transfer Railway Co.*, No. 24883, in the United States Circuit Court. Removed from the County Court of Cook County.

*Sanitary District of Chicago vs. The Chicago Terminal Transfer Railway Co.*, No. 24949, in the United States Circuit Court. Removed from the County Court of Cook County.

*Western Stone Company, appellant, vs. The Sanitary District of Chicago, appellee*, in the Supreme Court of Illinois.

*Sanitary District of Chicago vs. the Delaware, Lackawanna and Western Railway Co.*, No. 16964, in the County Court of Cook County.

**Sanitary District of Chicago vs. Thos. M. Hoyne**, Gen. No. 206667, in the Circuit Court of Cook County.

**Sanitary District of Chicago vs. Chicago, Rock Island and Pacific Railway Co.**, Gen. No. 210243, in the Circuit Court of Cook County.

**Sanitary District of Chicago vs. the City of Joliet and Jas. B. Mount** in the Circuit Court of Will County.

**Edward Bornemann vs. Blaine et al.**, No. 199728, in the Circuit Court of Cook County.

**City of Joliet vs. Sanitary District of Chicago et al.**, No. 17807, in the Circuit Court of Cook County.

**Martin Bramberk vs. Mason, Hoge, King & Co. et al.**, Gen. No. 201079, in the Circuit Court of Cook County.

**People of the State of Illinois ex rel. vs. Phillip Knopf, etc.**, Gen. No. 202826, in the Circuit Court of Cook County.

**Charles T. Blood vs. Gahan & Byrne et al.**, Justice Court of J. Bowen.

**Alexander Walker vs. the J. G. Wagner Company et al.**, No. 18055, in the Circuit Court of Will County.

**Michael F. Ruddy vs. The J. G. Wagner Company et al.**, No. 18056, in the Circuit Court of Will County.

**John E. Burke vs. the Sanitary District of Chicago et al.**, No. 9870, in the Appellate Court of the First District.

**Peter Beach vs. the Sanitary District of Chicago**, in the Justice Court of J. H. Nichols.

**Kzishow for the use of Bez vs. the Sanitary District of Chicago**, in the Justice Court of Chas. T. Blood.

**D. C. Deegan vs. the Sanitary District of Chicago**, in the Justice Court of Geo. H. Woods.

**John H. Bradshaw vs. the New York Security and Trust Company et al.**, in the Supreme Court of Illinois.

#### *Pending Lawsuits.*

**Griffiths & McDermott Construction Co. versus the Sanitary District of Chicago**, in the Circuit Court of Cook County, is an assumptit suit for sixty thousand (\$60,000.00) dollars for extras on Section one (1).

The case of **City of Joliet versus the San-**

**itary District of Chicago**, now pending in the supreme Court of Illinois, the new and important question is involved as to the power of municipal corporations to levy special assessments upon the property of the defendant, and in addition thereto whether the property of the Sanitary District, considering the uses to which it is subject and applied, may be assessed for the construction of a sewer in a similar manner as private property.

**Gahan & Byrne vs. the Sanitary District of Chicago**, is a suit for fifty thousand (\$50,000.00) dollars for extras on Contract Section 18.

**John Lussem versus the Sanitary District of Chicago**, is in the Circuit Court of Cook County. This is a bill for an injunction to prevent the issuance by the defendant of certain bonds amounting to two million five hundred thousand (\$2,500,000.00) dollars. The complainant contends that when this issue is made the bond outstanding would then exceed the statutory limitation, and further that the application of the funds thus obtained to the construction of the bridges, and the improvement of the Chicago River would be illegal.

The case of the **Canal Commissioners versus the Sanitary District of Chicago**, was a bill to enforce a specific performance of the contract requiring the maintenance of the Summit level by the corporation of the Bridgeport Pumping Works.

Judge Dunne held that the contract was not *ultra vires*, and required the District to operate the pumping plant from April 1st to November 15th, but refused to require the District to pump during the closed season. (This is from November 15th to April 1st.) The District appealed to the Appellate Court, and the Canal Commissioners appealed to the Supreme Court. The District moved in the Supreme Court to dismiss the appeal of the Canal Commissioners, maintaining that the appeal was improperly taken, that the court had no jurisdiction. This motion was not decided but taken with the case. The District did then assign cross-errors, which present the question of the validity of the contract to the Supreme Court. If the motion to dismiss is sustained the appeal to the Appellate Court will be perfected.

Phillip M. Prescott filed a bill for specific performance against the Sanitary District



praying for a writ of mandamus to compel the defendant to construct a levee in accordance with an agreement entered into with the complainant at the time certain property owned by him was purchased. This dike or levee if built will cost approximately forty-thousand (\$40,000.00) dollars.

The case of Carl Moll versus the Sanitary District is a suit to recover the rental value of certain premises condemned by the defendant for the period of occupancy which extended from the time the judgment was rendered at the first trial to the time the money was deposited with the County Treasurer in accordance with the final order in the second trial. The plaintiff contends that the measure of damages is the interest on the last judgment for the period mentioned, and that he can recover this amount in the present suit. The questions presented by the pleadings were argued before Judge Clifford, who held that the court, having acquired jurisdiction of the subject matter in the original condemnation suit, had the power and the exclusive power to enter judgment upon this claim, and entered judgment upon the demurrer in favor of the District. An appeal has been prayed to the Appellate Court.

Streeter & Kenefick versus Sanitary District of Chicago, in the Circuit Court of the United States. This is an assumpsit suit for one hundred and twenty-five thousand dollars (\$125,000.00) for extras on Contract Section "E".

The case of the State of Missouri versus the State of Illinois et al. in the Supreme Court of the United States is one of the eight original cases of which the Supreme Court has retained jurisdiction on the ground that the controversy was between states. This is undoubtedly the most important law suit that has ever confronted the Law Department, excepting, perhaps, one or two that were connate with the Sanitary District. Other cases have been conducted under more difficult conditions, and have involved more complex facts, and more complicated propositions of law, but none have involved a subject matter of such magnitude. If the complainant is successful, the people of Chicago will be deprived of the incalculable sanitary and commercial benefits secured to them by the operation of the Main Channel, and the enormous financial loss of over thirty-five million dollars (\$35,000,000.00).

The case of the City of St. Louis versus the

Sanitary District of Chicago et al., in the Circuit Court of the United States, for the Northern District of Illinois, is a bill for an injunction based upon the same principles, and praying for the identical relief, as that filed by the State of Missouri. The future proceedings in this case will be largely determined by the decision of the Supreme Court in that case.

The closing up of Thirty-first Street by the erection of the Southwest Boulevard bridge resulted in the filing of six suits against the Sanitary District. The total damage claimed amounts to three hundred and fifteen thousand and dollars (\$315,000.00).

McArthur Bros. vs. Sanitary of Chicago, Superior Court, No. 197437.

Mason, Hoge, King & Co. vs. Sanitary District of Chicago, Circuit Court, No. 194751.

John V. Farwell Company vs. Sanitary District of Chicago, et al., Superior Court, No. 200956.

McMahon & Montgomery Company et al. vs. Sanitary District of Chicago, Circuit Court, No. 198939.

Susie Garrett vs. Sanitary District of Chicago, Circuit Court, No. 198611.

Geo. Fagan vs. E. J. Coen, Circuit Court, No. 199482.

People by Attorney General vs. Sanitary District of Chicago, Circuit Court of the United States, No. 25850.

American Force Powder Company vs. Guilford et al., United States Circuit Court, No. 24284.

Sanitary District for use of Guilford vs. Agnew et al., Circuit Court, No. 174500.

Jos. O. Wright vs. Western Dredging and Improvement Company, et al., Superior Court, No. 193710.

Alfred Harlev vs. Sanitary District of Chicago, Circuit Court of Cook County, No. 159797.

Bridget McGuiri vs. Sanitary District, No. 161695, Circuit Court of Cook County.

Lazarus Silverman vs. Sanitary District of Chicago, Circuit Court of Cook County, No. 162799.

Myron H. Beach vs. Western Manufacturing Insurance Company et al., No. 171429.

A. P. Bowers vs. J. B. Brown et al., United States Circuit Court, No. 24505.

Gullford vs. Agnew & Co. et al., Circuit Court of Cook County, No. 174199.

P. H. O'Donnell, administrator, vs. Qualey Construction Company et al., Circuit Court of Cook County, No. 175164.

Smith & Eastman vs. Sanitary District of Chicago et al., Circuit Court of Cook County, No. 178626.

Griffiths & McDermott Construction Company vs. Sanitary District of Chicago, Circuit Court of Cook County, No. 181843.

Qualey Construction Company vs. Sanitary District of Chicago, Circuit Court of Cook County, No. 182654.

Wright, Meysenburg, Sinclair & Carry vs. Sanitary District of Chicago, Superior Court, No. 192856.

Bridget Mitchell, executrix, vs. Sanitary District of Chicago, Superior Court, No. 195286.

Sanitary District of Chicago vs. Glos, Circuit Court of Will County, No. 15754.

Postal Telegraph and Cable Company vs. Sanitary District of Chicago, Circuit Court of Cook County, No. 202574. Assumpsit, \$4,000.

John Busse et al., vs. Sanitary District of Chicago and the City of Chicago, Gen. No. 203692, in the Superior Court.

Peter McCullough vs. Sanitary District of Chicago, Gen. No. 203113, in the Circuit Court of Cook County.

Walter C. Larned et al. vs. Sanitary District of Chicago, and the City of Chicago, Gen. No. 203777, in the Superior Court.

City of St. Louis vs. Sanitary District of Chicago, No. 25426, in the Circuit Court of the United States.

William Rohn vs. Sanitary District of Chicago and the City of Chicago, No. 204055 in the Superior Court.

The State of Missouri vs. the State of Illinois et al., No. 7 in the Supreme Court of the United States.

August J. Trilbull vs. Sanitary District of Chicago et al., Gen. No. 204056 in the Superior Court.

William Mensching vs. Sanitary District of Chicago et al., 204057, in the Superior Court.

John A. Biggott vs. Sanitary District of Chicago, No. 205096, in the Circuit Court of Cook County.

Griffiths & McDermott Construction Company vs. Sanitary District of Chicago, No. 205754, in the Circuit Court of Cook County.

James Davidson vs. Sanitary District of Chicago, No. 929C, in the District Court of the United States.

Mary T. Burke vs. Chicago National Bank et al., No. 197386, in the Circuit Court of Cook County.

Phillip M. Prescott vs. Sanitary District of Chicago, No. 207760, in the Circuit Court of Cook County.

James H. Lomax vs. Sanitary District of Chicago, Gen. No. 208405, in the Circuit Court of Cook County.

Carl Moll, trustee, vs. Sanitary District of Chicago, No. 208413, in the Circuit Court of Cook County.

Sanitary District of Chicago vs. Belle F. Beehme, No. 18097, in the Circuit Court of Will County.

Walter Farady, administrator, etc., vs. The Chicago and Western Indiana R. R. Co., et al., Gen. No. 208398, in the Circuit Court of Cook County.

James Ray vs. Sanitary District of Chicago, No. 18165, in the Circuit Court of Will County.

Robert M. Adam vs. Sanitary District of Chicago, Gen. No. 210876, in the Circuit Court of Cook County.

William J. Adams vs. Sanitary District of Chicago, Gen. No. 210897, in the Circuit Court of Cook County.

John L. Henry vs. Sanitary District of Chicago, Gen. No. 209276, in the Superior Court of Cook County.

Janet T. Royer vs. Sanitary District of Chicago, Gen. No. 211733, in the Circuit Court of Cook County.

John Lussen vs. Sanitary District of Chicago, Gen. No. 211737, in the Circuit Court of Cook County.

Jacob Adler vs. Sanitary District of Chicago, No. 18229, in the Circuit Court of Will County.

Gahan & Bryne vs. Sanitary District of

Chicago, Gen. No. 212891, in the Circuit Court of Cook County.

Canal Commissioners vs. Sanitary District of Chicago, No. 212609, in the Circuit Court of Cook County.

Sanitary District of Chicago, appellant, vs. the City of Joliet, appellee, in the Supreme Court of Illinois.

Streeter & Kenefick vs. Sanitary District of Chicago, No. 25754, in the Circuit Court of the United States.

Special Assessment No. 6, West Chicago Park Commissioners.

City of Chicago vs. Sanitary District of Chicago, Gen. No. 214226, in the Circuit Court of Cook County.

Drainage Canal Transportation and Amusement Company vs. Sanitary District of Chicago, No. 9380, in the District Court of the United States.

#### *Contracts.*

Agreement with the Atchison, Topeka and Santa Fe Railway Company et al for the use of the right of way to accommodate railroad traffic near Campbell Avenue.

Agreement with the City of Chicago for the completion of Thirty-ninth Street and Lawrence Avenue intercepting sewers, conduits, pumping station, etc.

Agreement with the Lafayette Bridge Company for superstructure, bear trap dam bridge.

Agreement with John A. Larson for brick buildings for housing machinery of bear-trap dam.

Agreement with the Lydon & Drews Company for dredging Chicago River and collateral work.

Agreement with Frank M. Montgomery & Company for the designs, plans, etc., of a bridge to be constructed at Canal Street, and also for the designs, plans, etc., of bridges to be constructed at Eighteenth and Main Streets, Randolph Street and three other points to be selected.

Agreement with Page & Shrable for the designs, plans, etc., of a bridge to be constructed at Ashland Avenue.

Agreement with the People's Gas, Light and Coke Company for the purchase of certain dock land on the Chicago River.

Agreement with the A. & P. Roberts Company as to the assignment by the Scherzer Rolling Lift Bridge Company of the contract for superstructure of eight-track bridge.

Agreement between the Sanitary District and A. & P. Roberts Company by which the Sanitary District gives its consent and approval to the assignment by the Scherzer Rolling Lift Bridge Company for the superstructure of the eight-track bridge.

#### *Ordinances.*

For the tax levy of 1900 passed January 10th, 1900, for the payment of interest on the tax levy warrants for the year 1900.

For the ninth issue of 4 per cent currency bonds amounting to \$1,000,000 and providing for the repeal of the ordinance passed December 20th, 1899, and January 7th, 1900.

An ordinance passed for a condemnation of property for increasing the width of the Chicago River to 200 feet, and to a depth of 30 feet, passed April 25th, 1900.

Providing for the tenth issue of four per cent currency bonds for \$1,000,000, passed May 31st, 1900.

For the improvement of the South Branch of the Chicago River from Twelfth street to Ashland Avenue to a width of 200 feet and a depth of 30 feet, passed June 6, 1900.

An ordinance passed providing that the funds secured by the sale of the tenth issue of bonds be applied to the construction of the Main Drainage Channel.

An ordinance passed accepting the ordinance passed by the City of Chicago in reference to the construction of bridges at State, Randolph, Harrison, Polk, Eighteenth and Main Streets and Ashland Avenue, passed August 20th, 1900.

Providing for the eleventh issue of 4 per cent currency bonds amounting to \$2,500,000.00.

Defining the purpose of the issues of bonds authorized September 12, 1900.

Providing for the lease of the water power to be developed at or near the controlling works.

An ordinance passed cancelling part of the eleventh issue of bonds and repealing part of the former ordinance.

*Opinions.*

The following opinions were rendered during the year:

1. In reference to the claim of the Chicago Terminal Railway Company based on the payments made by said company to Andrew Gustafson for personal injuries.
2. In regard to the claim of the Omaha Packing Company, doing business under the name of Viles & Robbins, for damages, amounting to about \$10,000.00, to the docks adjoining the Chicago River, caused by the increased current.
3. Opinion of the General Counsel and Attorneys as to the validity of the agreement between the Sanitary District and the Canal Commissioners of the Illinois and Michigan Canal, providing for the maintenance of the summit level, and the settlement of other differences.
4. As to the claim of Marsh & Bingham Company for a lien on the moneys due the Toledo Bridge Company, upon its contract for the Belt Railway four-track bridge.
5. In regard to the release of the bond of Lydon & Drews Company for the construction of By-pass.
6. With reference to the legal effect of Clauses 1 and 2 of the specification entitled "Specifications for Dredging the Chicago River, and Performing Certain Collateral Work."
7. As to the right of the District to lengthen the Main Channel and constructing wheel-plots for the purpose of creating water power.
8. As to the necessity of advertising extra work and authorizing the removal of the coffer-dam, and building retaining wall on Section 18.
9. As to whether or not the Sanitary District has a right to demand a release in full of all claims against the District upon final payment to contractors.
10. In regard to the claim of Jno. F. Quinn against Heldmaier & Neu.
11. With reference to the validity of the claim of Edward Hines Lumber Company and the McCormick Harvesting Machine Company for damages caused by the lowering of the South Branch.
12. In regard to the liability of the Sanitary District for personal injuries which may happen to parties trespassing upon the lands of the District.
13. With reference to the reduction or release of the bonds given by numerous contractors for the faithful performance of their contracts.
14. On the power of the District to acquire by condemnation the necessary property along the bank of the Chicago River, and widen the same so as to provide for a sufficient flow of water without injury to navigation.
15. In regard to the number of cubic feet of water permitted or required to be maintained through the Main Channel of the Sanitary District at Chicago.
16. As to whether or not the population mentioned in the organic act of the District refers to the population within the boundaries, or the population of the area drain.
17. In reference to the power of the District to improve the Chicago River or its branches, if it is reasonably necessary so to do, in order to acquire a sufficient flow of water for the present population draining into the District.
18. As to whether or not the City of Chicago can delegate its police powers over the Chicago River to the Sanitary District of Chicago.
19. In reference to the power of the Secretary of War to direct the modifications of all bridges across the Chicago River which are an unreasonable obstruction to navigation.
20. As to the duty of the District, before it commences the erection or construction of any bridge across the Chicago River, to transmit the plans therefor to the proper Federal authorities.
21. As to the liability of the Sanitary District to Streeter & Kenefick for the profits or surplus upon Section "E" left in the hands of the District after paying the contractors who completed the work.
22. In regard to the power of the Sanitary District to let additional work to Gahan & Byrne on sections other than the ones for which said firm had contracts under the clause of their contract providing for extra work without first advertising.
23. On the liability of the District for extra compensation to Griffiths & McDermott

on contract for foundation for the bear-trap dam and collateral work.

24. On the liability of the District for the claim of Thomas Blake for injuries alleged to have been sustained by him while on the Canal Lock at Bridgeport.

25. With reference to the liability of the District for damage caused to private property by erosion of the banks of the Chicago River in consequence of the acceleration of the current

26. In reference to the right of the Sanitary District to make a partial abatement of the taxes levied in the year 1899.

#### *Miscellaneous.*

Negotiations leading up to the purchase of certain property adjacent to the Chicago River from Charles T. Boal were conducted by this Department.

Investigations have been made as to the claim of John McNamara, Geo. H. Witly, Alexander Walker and M. F. Ruddy and William McMahon.

A large number of affidavits with reference to prevailing sanitary conditions in the Illinois and Mississippi Rivers were obtained by this Department to be used in the cases of the City of St. Louis versus the Sanitary District, and the State of Missouri versus the State of Illinois et al.

A representative of the Department has interviewed many owners and agents of property adjoining proposed new channel in the North Branch of the Chicago River, to ascertain their willingness to donate to the Sanitary District the property required for said improvement. A great majority of said owners are willing to donate the property required.

This Department during the last year examined the right-of-way district through Joliet to ascertain what excavated portions had been submerged since the water was let into the Main Channel.

A petition was prepared and filed praying for a reduction of taxes based on the result of this investigation.

The deposition of Charles L. Harrison, who at one time occupied the position of Assistant Engineer for the Sanitary District, was taken in Denver, Colorado, on behalf of the defendant in the cases of Smith & Eastman versus

the Sanitary District, and McArthur Bros. versus the Sanitary District of Chicago.

Investigations in reference to the nature and extent of the damages claimed by the owners of the Steamers "Algeria," "Italia" and "Amazon" were made by this Department.

Expenditures of the Law Department, Sanitary District of Chicago for the year ending, December 31, 1900.

Court costs.....	\$ 2,146 61
Salaries.....	23,536 75
General expenses.....	9,072 20
Legal services.....	16,752 39
Stationery, printing, law books...	747 93
	<hr/>
	\$ 52,255 88
Land account.....	105,800 28
	<hr/>
	\$158,056 11

Prior to the completion and operation of the Main Channel the character of the work required by this Department was largely executive in its nature. It was mainly occupied in securing the required right of way, necessitating negotiations and contracts with individuals and railroads, and also numerous condemnation suits.

Numerous cases arising out of these contracts and condemnation suits are still pending, some for damages, others for interest on judgments appealed from. This class of work has gradually increased, and will probably continue to do so.

This Department is required to cover both the office work necessary in connection with the drafting of committee reports, contracts, ordinances and the rendering of opinions; and at the same time conduct the trial of law suits which are now crowding one another upon the various court calendars. This Department has kept abreast of this immense volume of work.

As stated before, the main work of this Department has heretofore been that arising out of the requirements of the right-of-way; however, since the opening of the Channel the change in the character of the litigation is of serious import to the Sanitary District. There are suits pending in all the courts from the Justice of the Peace to the Supreme Court of the United States. These cases cover also many different branches of law—mercantile, real property, personal injuries, probate, municipal securities, patents and admiralty. These claims, and especially the

exorbitant demands of many contractors for extras, will require incessant vigilance on the part of this Department to defeat.

I subjoin herewith a tabulated statement of all the land acquired by the District for its corporate purposes since December 31, 1899, including the manner of its acquisition, the amount paid or awarded for the same, from whom acquired and the date of the deed or decree, also an inventory of the personal property controlled by the Law Department.

Respectfully submitted,

JAMES TONN,  
Attorney.

*Right of Way Along South Branch Chicago River Acquired During the Year 1900.*

Tract No. 168, acquired from Chicago, Rock Island and Pacific Railway Company by condemnation, on September 20, 1900, for \$3,831.12, containing 1831 square feet, described as follows:

That part of Lots twelve (12) and thirteen (13) of Stowell's Subdivision of Blocks one hundred and six (106) and one hundred and seven (107) in School Section Addition, in the City of Chicago, County of Cook, State of Illinois, lying southwesterly of the following described line:

Beginning at the point of intersection of the north line or the north line extended of said Lot twelve (12) with the present (July 15, 1900) east dock line of the Chicago River; running thence southeasterly on a straight line for a distance of 229.52 feet to a point in the present (July 15, 1900) east dock line of the South Branch of the Chicago River, the above described line intersecting the south line of said Lot twelve (12) at a distance of 282.67 feet from the southeast corner of said Lot twelve (12), measured in a westerly direction along said south line.

Tracts Nos. 39 and 40, acquired from William A. Havemeyer and Rosa R. Havemeyer by purchase, on September 1, 1900, for \$11,372.00, containing 5686 square feet, described as follows:

That part of Old Street, between Blocks four (4) and fourteen (14), Canal Trustees' Subdivision of the west one-half (W.  $\frac{1}{2}$ ) of Section twenty-one (21), Township thirty-nine (39) North, Range fourteen (14) East of the Third (3d) Principal Meridian, and so much of the southeast quarter (S. E.  $\frac{1}{4}$ ) as

liest west of the South Branch of the Chicago River, and that part of Lots four (4) and five (5) in said Block four (4) lying west of the following described line:

Beginning at a point on the north line of Eighteenth street, two hundred (200) feet east of the northeast corner of Lumber and Eighteenth Streets, measured along said north line; thence running northeasterly to the point of intersection of the present (August 1, 1900) west dock line of the South Branch of the Chicago River with the north line of said Lot four (4), excepting therefrom those parts of Lots four (4) and five (5) recently purchased by the Sanitary District of Chicago and the United States Government for the purpose of widening the South Branch of the Chicago River.

Tract No. 43, acquired from Thomas H. Hoyne et al by condemnation on December 14, 1900, for \$13,354.30, containing 7,681.08 square feet described as follows:

That part of the north half (N.  $\frac{1}{2}$ ) of Lot three (3), by frontage, Block fourteen (14), in Canal Trustees' Subdivision of the west half (W.  $\frac{1}{2}$ ) of Section twenty-one (21), Township thirty-nine (39) North, Range fourteen (14) East of the Third (3rd) Principal Meridian; and so much of the southeast quarter (S. E.  $\frac{1}{4}$ ) as lies west of the South Branch of the Chicago River, lying southeasterly of a line drawn from a point on the dividing line between Lots two (2) and three (3) in said Block fourteen (14), 190.5 feet southeasterly of the northwest corner of said Lot three (3), measured along said dividing line, to a point on the northeasterly line of Lot one (1), Block thirty-five (35) in said Canal Trustees' Subdivision, one hundred and ninety-seven (197) feet southeasterly of the northwest corner of said Lot one (1), measured along said northeasterly line, in the City of Chicago, County of Cook, State of Illinois.

Tracts Nos. 44, 45, and 46, acquired from Jose B. King by purchase, on October 30, 1900, for \$34,700.88, containing 23,138.92 square feet, described as follows:

That part of the south half (S.  $\frac{1}{2}$ ) of Lot three (3), by frontage, Lot four (4) and Lot five (5), east of the easterly right of way line of the Pittsburgh, Ft. Wayne and Chicago Railway, in Block fourteen (14) in the Canal Trustees' Subdivision of the west half (W.  $\frac{1}{2}$ ) of Section twenty-one (21), Township thirty-

nine (39) North, Range fourteen (14) East of the Third (3d) Principal Meridian, and so much of the southeast quarter (S. E.  $\frac{1}{4}$ ) as lies west of the South Branch of the Chicago River, lying southeasterly of the following described line:

Beginning at a point in the dividing line between Lots two (2) and three (3) in said Block fourteen (14), 190.5 feet distant from the northwest corner of said Lot three (3), measured along said dividing line; thence running southwesterly to a point in the northeasterly line of Lot one (1), Block thirty-five (35) in said Canal Trustees' Subdivision, 197.0 feet southeasterly of the northeast corner of said Lot one (1), measured along said northeasterly line.

Tract No. 146, acquired from Louis Hutt and Kate Hutt by purchase, on December 25, 1900, for \$9,181.35, containing 7,101.9 square feet, described as follows:

That part of Lots two (2), three (3) and four (4), Block thirty-four (34) of the Canal Trustees' Subdivision of the west half (W.  $\frac{1}{2}$ ) of Section twenty-one (21), Township thirty-nine (39) North, Range fourteen (14) East of the Third (3d) Principal Meridian, and so much of the southeast quarter (S. E.  $\frac{1}{4}$ ) as lies west of the South Branch of the Chicago River, lying southeasterly of the present (December 1, 1900) easterly dock line of the South Branch of the Chicago River, and northwesterly of the following described line:

Beginning at a point on the dividing line between Lots one (1) and two (2) in said Block thirty-four (34), one hundred and fifty-nine (159) feet westerly of the west line of Canal Street, measured along said dividing line; running thence southwesterly to the point of intersection of the present (December 1, 1900) easterly dock line of the South Branch of the Chicago River, with the north line of Twenty-second Street, situated in the City of Chicago, in the County of Cook, State of Illinois.

Tracts Nos. 83, 84, 85 and 86, acquired from The Peoples Gas Light and Coke Company by purchase, on June 27, 1900, for \$1.00 and other consideration, containing 4,529 square feet, described as follows:

That part of Lots twenty-eight (28), twenty-nine (29), thirty (30) and thirty-one (31) in Green's South Branch Addition to Chicago, being the north fractional part of Section twenty-nine (29), Township thirty-nine (39)

North, Range fourteen (14) East of the Third (3d) Principal Meridian, except the east 16.72 acres lying south of the following described line:

Beginning at a point on the east line of Lot thirty-one (31), Green's South Branch Addition, two hundred and fifty-one (251) feet south of the northeast corner of said Lot thirty-one (31), measured along said east line; running thence northwesterly to a point in the present (June 1, 1900) north dock line of the South Branch of the Chicago River, intersecting the west line of Lot twenty-nine (29) in said Green's South Branch Addition, at a point two hundred and sixty-six feet south of the northwest corner of said Lot twenty-nine (29), measured along said west line, containing 4,529 square feet more or less.

That part of Lot five (5) in Blocks three (3) and four (4) of Canal Trustees' Subdivision of the blocks in the south fractional half ( $\frac{1}{2}$ ) of Section twenty-nine (29), Township thirty-nine (39) North, Range fourteen (14) East of the Third Principal Meridian, lying northeasterly of the following described line:

Beginning at a point in the south line of that part of Lot five (5) in said Blocks three (3) and four (4), recently purchased by the United States Government for the purpose of widening the South Branch of the Chicago River, one hundred and seventy-three (173) feet west of the point of intersection of the east line of said Lot five (5), with the present (June 1, 1900) dock line of the South Branch of the Chicago River, measured along the said south line, running thence southeasterly to an angle in the present (June 1, 1900) south dock line of the South Branch of the Chicago River, the above described line continued in the same direction, intersecting the west line of Lot one (1), Blocks three (3) and four (4) at a distance of two hundred and forty (240) feet from the southeast corner of said Lot one (1), measured along said west line, excepting therefrom the tract of land recently purchased by the United States Government for the purpose of widening the South Branch of the Chicago River.

Tract No. 10a, acquired from Mary J. V. Chandler and husband, and Jennie Wilce Spry and husband, by purchase, on April 28d, 1900, for \$15,737.00, containing 15,737 square feet, described as follows:

That part of Lots twenty-four (24) and twenty-five (25) in Green's South Branch Addition to Chicago, being the north fractional part of Section twenty-nine (29), Township thirty-nine (39) North, Range fourteen (14), East of the Third Principal Meridian, excepting the east 16.72 acres thereof, described as follows:

Beginning at a point in the east line of Throop Street, two hundred and sixty-two (262) feet southerly of the northwest corner of said Lot twenty-four (24), thence running northeasterly on straight line, intersecting the east line continued of said Lot twenty-five (25) at a point three hundred and four (304) feet southeasterly of the northeast corner of said Lot twenty-five, the above described line being the northerly boundary line of the tract of land recently purchased by the Sanitary District of Chicago; thence northwesterly along the east line of said Lot twenty-five (25) to a point 263.5 feet southeasterly of the northeast corner of said Lot twenty-five (25); thence southwesterly on a straight line to a point on the west line of said Lot twenty-four (24), said west line being the east line of Throop Street, 208.5 feet southeasterly of the northwest corner of said Lot twenty-four (24); thence south-

easterly along the west line of said Lot twenty-four to the point of beginning.

Tracts Nos. 87, 88 and 89, acquired from Henrietta A. Boal and Charles T. Boal by purchase on November 19, 1900, for \$6,505.65, containing 8,674.20 square feet, described as follows:

That part of Lots twenty-one (21) twenty-two (22) and twenty-three (23), in Green's South Branch Addition to Chicago, being the north fractional part of Section twenty-nine (29), Township thirty-nine (39) North, Range fourteen (14) East of the Third Principal Meridian, excepting the east 16.72 acres thereof, lying southerly of a line described as follows:

Beginning at a point in the west line of Throop Street, 197.3 feet southerly of the northeast corner of said lot twenty-three (23); running thence southwesterly to a point in the west line of said Lot twenty-one (21), distant 217.37 feet in a southerly direction from the northwest corner of said Lot twenty-one (21), measured along said west line, excepting from the above described property that part formerly purchased by the Sanitary District of Chicago for the purpose of widening the South Branch of the Chicago River.

#### RECAPITULATION.

##### *Lots Acquired.*

	NUMBER.	AMOUNT PAID.	TOTAL.
Chicago and Cook County—			
By Purchase.....	* 76	\$ 61,875 00	
By Condemnation.....	84	14,850 00	
			\$ 79,225 00
In Joliet—			
By purchase.....	90	\$ 123,112 04	
By condemnation..	130	202,755 00	
			325,867 04
Total for lots in Will and Cook Counties.....			\$ 405,092 04

\*This includes all the right of way acquired in Manchester's Subdivision, and in addition one lot in Singer & Talcott's Subdivision at Lemont. Parts of lots and blocks in Manchester acquired from the Atchison, Topeka and Santa Fe Railway Company, aggregating 4,723 acres are not included in above, though the consideration is included in the total.



*Lands.*

	ACRES.	AMOUNT PAID.	TOTAL.
<b>Cook County—</b>			
By purchase.....	2,278.06	\$1,339,259 84	
By condemnation.....	1,676.15	719,231 77	
			\$2,058,541 61
<b>Du Page County—</b>			
By purchase.....	201.65	\$ 14,261 85	
By condemnation.....	321.81	60,587 88	
			74,849 73
<b>Will County—</b>			
By purchase.....	1,369.39	\$ 330,119 85	
By condemnation.....	1,117.21	134,194 35	
			464,314 20
			\$2,597,705 54

*Chicago River and Canal Commissioners.*

	AREA SQ. FEET.	AMOUNT.
By purchase.....	103,400.02	\$ 105,576 28
By condemnation.....	26,577.03	35,050 42
From Canal Commissioners of Will County.....	25,199.00	39,630 00
		\$ 180,256 70

*Summary.*

Paid for lands in Cook County.....	\$ 2,058,541 61
Paid for lands in DuPage County.....	74,849 73
Paid for lands in Will County.....	464,314 20
Paid for lands on Chicago River.....	*119,540 20
Paid for lands from Canal Commissioners.....	39,630 00
Paid for lots in Cook County.....	79,225 00
Paid for lots in Will County.....	325,867 04
	\$ 3,161,967 78

\*From this item has been deducted \$21,086.50 paid by the United States for 15,109.50 feet, comprising the Havemeyer, Dupont and Spry property, being tracts two (2), nine (9), nine a (9a), and ten (10) respectively.

INVENTORY OF THE LAW DEPARTMENT,  
SECURITY BUILDING, CHICAGO.

*Room 1104.*

1 large cylinder desk.  
1 revolving desk chair.  
3 office chairs.  
1 Wilton rug.  
1 small rug.  
1 cuspidor.  
1 waste basket.  
1 wire desk basket.  
1 small book rack.

*Room 1105.*

3 roller top desk.  
3 office chairs (revolving.)  
1 flat top desk.  
2 stools.  
3 cuspidors.

2 electric desk lamps.  
1 office chair.  
1 revolving cherry chair.  
1 large velvet rug.  
1 small rug.  
3 waste baskets.

*Room 1106.*

1 roller top desk.  
2 office chairs.  
1 Wilton rug.  
1 copying press and cabinet.  
1 copying cloth bath.  
1 Remington typewriter.  
1 typewriter desk.  
1 typewriter chair.  
1 cuspidor.  
1 wire desk basket.  
2 waste baskets.  
1 eye-letting machine.

1 telephone stool.  
1 tin file box.  
1 crayon portrait.

*Room 1107.*

1 roller top desk.  
1 desk chair.  
5 office chairs.  
1 wire waste basket.  
2 cuspidors.  
1 large rug.  
1 30-crate Wernicke bookcase.  
1 6-crate Wernicke bookcase.  
1 18-crate Wernicke bookcase.  
1 library table.  
1 electric desk lamp.  
2 wire desk baskets.  
1 picture of Drainage Channel.

*Old Wood's Building, Joliet.*

2 tables.  
18 office chairs.  
1 cupboard.  
**Maps.**  
Atlas, Joliet right of way.  
1 roller top desk.  
1 desk chair.  
1 flat top desk.  
4 cuspidors.  
1 stove (Elegant).

*Miscellaneous.*

Abstracts of title, bound, Cook County, 7.  
Abstracts of title, bound, DuPage County 5.  
Abstracts of title, Will County, 146.  
Bill and letter files, 20.  
Lange's document files, 6.  
Awnings, 7.  
Court docketts, 6.  
Binders for proceedings, 6.  
Blank contracts and specifications, 1,000.  
File boxes.  
Pens, rulers, erasers, etc.  
Legal blanks, assorted.  
Ink, wells, etc.  
Envelopes, letter heads, etc.  
Miscellaneous stationery.  
Miscellaneous abstracts.

*Inventory of Library.*

	Vols.
American Digest, 1897 to 1899 .....	4
American and English Encyclopedia of Law .....	29
American and English Encyclopedia of Law, second edition .....	16
Almanac, Daily News, 1892-5-6-7-8 .....	5
By-laws, Boisot .....	1

Briefs, bound .....	18
Canal Commissioners' Reports, 1896-97 .....	2
Chancery Pleading and Practice, Daniels .....	3
Chancery Pleading and Practice, Puterbaugh .....	1
Chicago, Laws and Ordinances, 1890-1894 .....	2
Chicago, Revised Code, 1897 .....	1
Contracts, Bishop .....	1
Corporations, Cook .....	3
Dictionary of Law, Anderson .....	1
Damages by Corporations, Haines .....	2
Damages, Southerland .....	3
Damnum Absque Injuria, Weeks .....	1
District vs. Cullerton .....	1
Digest, United States, new series .....	18
Digest, United States, first series .....	15
Digest, General, of United States .....	3
Digest, General, of American and English .....	4
Digest, Index, United States Supreme Court .....	3
Digest, United States Table of Cases .....	1
Digest, Illinois, Long .....	5
Digest, Illinois, Kinney's .....	6
Drainage Channel, Brown .....	1
Eminent Domain, Lewis, second edition .....	2
Eminent Domain, Lewis, first edition .....	1
Estoppel, Biglow .....	1
Evidence, Greenleaf .....	3
Extraordinary Legal Remedies, High .....	1
Former Adjudication, Van Fleet .....	2
Fraud, Bigelow .....	2
Forms, Encyclopedia of .....	12
Forms, Precedents, Illinois, McNeil .....	3
House Bills, 1899 .....	3
Hurley vs. Sanitary District .....	3
Hurd, Statutes of 1897 .....	1
Injunctions, High .....	2
Illinois, Laws, 1892, 1893, 1895, 1897, 1899 .....	5
Illinois Annotated Statutes, Starr & Curtis .....	3
Illinois Annotated Statutes, Starr & Curtis, Second Edition .....	1
Illinois Citations, Shepard's .....	1
Illinois Citations, Bowman .....	1
Illinois Citations, Bowman, Supplement .....	1
Illinois Revised Statutes, Hurd, 1899 .....	1
Illinois Citations and Overruled Cases, Evans .....	1
Illinois Appellate Court Reports .....	91
Illinois Supreme Court Reports .....	186
Joliet Council Proceedings, 1898-1899 .....	1
Liens, Jones .....	2
Legislative Directory, 1897 .....	1
Marine Collisions, Spencer .....	1
Mandamus, Merrill .....	1
Modern Equity Jurisprudence, Beach .....	2

Modern Equity Practice, Beach.....	2
Municipal Securities, Haines.....	1
Municipal Corporations, Dillon.....	2
Municipal Corporations, Tiedeman.....	1
Negligence, Law of.....	2
Negligence of Municipal Corporations, Jones.....	1
Non-Contract Law, Bishop.....	1
Nuisances, Wood.....	2
Parties to Actions, Dicey.....	1
Personal Injury, Bailey.....	2
Personal Property, Schouler.....	2
Pleading and Practice, Encyclopedia of... 19	
Pleading and Practice, Puterbaugh, Law..	1
Practice, Supreme Court of Illinois, And- rews.....	1
Proceedings, Cook County Commission- ers, 1892-8.....	1
Proceedings Sanitary District, 1890 to 1899	9
Public Corporations, Beach.....	2
Public Health and Safety, Parker.....	1
Public Officers, Throop.....	1
Real Property, Hopkins.....	1
Real Property, Tiedeman.....	1
Revised Statutes of United States, 1878... 1	
Revised Statutes of United States. Suppl't	8
Roads and Streets, Elliott.....	1
Rules of Court, Illinois.....	1
Rules of Practice, United States Courts..	1
Senate Bills.....	1
Special Assessments.....	1
State Board of Equalization.....	1
Tax Titles, Blackwell.....	2
Taxation, Cooley.....	1
Trusts, Perry.....	2
Township Laws, Haines.....	1
Trial Evidence, Abbott.....	1
Trials, Thompson .....	2
Trials of Title to Land, Sedgwich .....	1
Ultra Vires, Reece.....	1
United States Supreme Court Reports....170	
Waters, Gould .....	1

**REPORT SUBMITTING FORM OF GROUND  
LEASE TO BE ENTERED INTO WITH  
ROBERT TURNER OF WILL COUNTY, ILL-  
INOIS.**

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee transmitting form of ground lease to be entered into and executed by the President and Clerk on behalf of the Sanitary District with Robert Turner, of Will County, Illinois, the report setting forth that said lease is in conformity with the form of lease heretofore adopted by the Board.

The following is the report:

CHICAGO, March 26th, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance reports herewith a form of ground lease to be executed by the District with the party hereinafter mentioned, for the use of certain lands owned by the District along the banks of the Main Channel. The lands rented out are to be used for farming and grazing purposes by Robert Turner, of Will County, Illinois, at an annual rental of \$70.00, payable in two installments of \$35.00 each, as evidenced by his two certain promissory notes. Said lands are described as follows:

That part of Sections 10, 11, 14 and 15 in Township 36 North, Range 10 East of the Third Principal Meridian, otherwise described as a strip of land in Contract Section 14, lying west of a line 200 feet distant from, measured at right angles, in a westerly direction and parallel to the west bank of the Main Drainage Channel of the Sanitary District of Chicago, and east of a line 700 feet distant from, measured at right angles, in a westerly direction and parallel to the west bank of the Main Drainage Channel of the Sanitary District, containing twenty acres, more or less, in Will County and State of Illinois.

That said lease is in conformity with the form of lease heretofore adopted by the Board of Trustees for use in cases as above.

The Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to execute on behalf of the District said lease to the said party, Robert Turner, as above set forth, for the lands above described, when said party on his part shall have executed the same and complied with the terms and conditions thereof, which may be deemed necessary as conditions precedent to the execution of said lease.

Respectfully submitted,

(Signed)

Z. R. CARTER,

*Chairman.*

THOMAS A. SMYTH,

FRANK X. CLOIDT,

FRANK WENTER.

WM. LEGNER,

*Committee on Finance.*

(One enclosure.)

The following is the form of lease:

TERMS OF LEASE TO ROBERT TURNER.

*This Indenture, Made this first (1st) day March, in the year of our Lord one thousand nine hundred and one (1901), between the Sanitary District of Chicago, a corporation organized and existing under the laws of the State of Illinois, party of the first part, and Robert Turner, of Will County, Illinois party of the second part:*

*Witnesseth, That the said party of the first part, for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, his executors, administrators and assigns, has demised and leased to the said party of the second part all those premises situate, lying and being in the County of Will and State of Illinois, known and described as follows, to-wit: That part of Sections ten (10), eleven (11), fourteen (14), fifteen (15), in Township thirty-six (36) North, Range ten (10) East of the Third Principal Meridian, otherwise described as a strip of land in Contract Section 14, lying west of a line two hundred (200) feet distant from, measured at right angles in a westerly direction, and parallel to the west bank of the Main Drainage Channel of the Sanitary District of Chicago, and east of a line seven hundred (700) feet distant from, measured at right angles in a westerly direction, and parallel to the west bank of the Main Drainage Channel of said Sanitary District, containing 20 acres, more or less, excepting therefrom the Main Drainage Channel of the Sanitary District of Chicago and a strip of land two hundred (200) feet wide on each side of said channel and adjacent thereto.*

*To Have and to Hold the above described premises, with the appurtenances, unto the said party of the second part, his executors, administrators and assigns, from the first (1st) day of March, in the year of our Lord one thousand nine hundred and one (1901), for and during and until February twenty-eight (28), one thousand nine hundred and two (1902).*

*And the said party of the second part, in consideration of the leasing of the premises aforesaid by the said party of the first part to the said party of the second part, does covenant and agree with the said party of the first part, its successors and assigns, to pay the said party of the first part, as rent for said demised premises, at the office of said first party in Chicago, the sum of seventy dollars, in two installments of \$35.00 each, as evidenced by his two certain promissory notes of even date herewith, and due and payable on September 1st, 1901, and November 1st, 1901. The said party of the first part further reserves the right to go upon said property at any time for surveying or any other corporate uses which said party of first part may desire to subject said property to. It is further agreed by the said party of the sec-*

*ond part that if at any time of making the survey, as provided for herein, it is discovered that there is more tillable land in said tract than is provided for in the description of the premises herein leased, then, upon due notice thereof, the said party of the second part shall pay to the said party of the first part the sum of \$3.50 per acre for all such tillable land in excess of that herein described.*

*(The remaining terms of this lease are identical with those of the lease to George Nagel, as printed on page 7101 of the Proceedings of March 20, 1901.)*

On motion of Mr. Carter, seconded by Mr. Smyth, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Seven.

*Nays*—None.

REPORT IN REFERENCE TO COMPLETION OF CONTRACT FOR CONSTRUCTION OF TAYLOR STREET HIGHWAY BRIDGE ACROSS THE CHICAGO RIVER.

Mr. Smyth, member of the Committee on Engineering, presented a report from the Committee, accompanied by Final Certificate of the Chief Engineer, as to the completion of the contract of the Chicago Bridge and Iron Company for the construction of the superstructure of the Taylor Street Highway Bridge across the Chicago River, and recommending that the President and Clerk of the District be authorized and directed to make final payment to said Chicago Bridge and Iron Company, in the sum of \$4,827.86, the amount found to be due on the final certificate of the Chief Engineer, upon said company filing a bond in the sum of \$15,000.00, as provided for in its contract.

The following is the report:

CHICAGO, March 27, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Engineering herewith reports the Final Certificate of the Chief Engineer in favor of the Chicago Bridge and Iron Company for the construction of the superstructure of the Taylor Street Highway Bridge across the Chicago River, and having examined said certificate and considered the subject matter thereof, recommends as follows:

That the President and Clerk of the Dis-

trict be authorized and directed to pay in the usual manner the sum of forty-six hundred and twenty-seven and eighty-six hundredths dollars to said Chicago Bridge and Iron Company, the amount found to be due in said final certificate aforesaid, when said company shall have executed on its part a bond in the sum of fifteen thousand (\$15,000) dollars, as provided for in its contract; also a receipt and release in favor of the District, discharging it from all further claims or demands of whatsoever kind or nature arising from or growing out of the contract for said superstructure.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,  
Z. R. CARTER,  
FRANK X. CLOIDT,  
THOMAS J. WEBB,  
FRANK WENTER,  
WM. LEGNER.

*Committee on Engineering.*

The following is the Final Certificate of the Chief Engineer:

CHICAGO, March 19, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I hereby certify that the Chicago Bridge and Iron Company has completed the superstructure of the Taylor Street Highway Bridge across the Chicago River, in accordance with the terms of its contract with the Sanitary District of Chicago, dated May 8, 1899, to the full satisfaction of the Chief Engineer:

This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract and subject also to Clause 45 of the contract requiring the contractor to maintain the work for a period of one year after its acceptance by the Chief Engineer, whose acceptance is dated February 11, 1901 (page 491 of letter book).

A statement of the completed contract is as follows:

Lamp sum price for superstructure.....\$52,000 00

Extra medium and soft steel, 21,042 lbs., at 6c.....	\$ 1,262 52
Extra steel and iron castings, 1,941 lbs., at 10c.....	194 10
Extra counterweight castings, 17,810 lbs., at 20c.....	356 20
Telephones between operating houses.....	50 00
Sundry labor performed and material furnished for work done under "extra work" clause with 15 per cent. added.....	1,965 04
Total cost of contract.....	\$55,827 86
Amount paid on previous vouchers.....	51,200 00
Amount due and unpaid.....	\$ 4,627 86

Respectfully submitted,

(Signed.) ISHAM RANDOLPH,  
*Chief Engineer.*

On motion of Mr. Smyth, seconded by Mr. Cloidt, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Carter, Cloidt, Jones, Legner, Smyth, Webb and Wenter—Seven.

*Nays*—None.

ORDER CLOSING OFFICES OF THE DISTRICT AT 12:00 (NOON) ON SATURDAYS, BEGINNING APRIL 6, 1901.

Mr. Webb, Chairman of the Committee on Labor, presented a report from the Committee, recommending the adoption of the order presented by Mr. Baker at the meeting of the Board, held March 20, 1901 (page 7109 of the Proceedings), and referred to the Committee on Labor, being in reference to the closing of the offices of the District at noon on every Saturday, beginning April 6, 1901.

The following is the report:

CHICAGO, March 26, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Labor, to which was referred at a meeting of the Board, held March 20, 1901 (page 7109 of the Proceedings), the resolution presented by Mr. Baker, begs leave to report that it

has carefully considered the same, and recommends that the same be adopted.

Respectfully submitted,

(Signed) THOMAS J. WEBB,  
Chairman.

Z. R. CARTER,  
FRANK X. CLOIDT,  
WM. LEGNER,  
FRANK WENTER,  
THOMAS A. SMYTH,  
Committee on Labor.

(One enclosure.)

On motion of Mr. Webb, seconded by Mr. Legner, the report was adopted and the recommendation contained therein concurred in.

*Yeas*—Messrs. Carter, Cloidt, Jones, Legner, Smyth, Webb and Wenter—Seven.

*Nays*—None.

REPORT SUBMITTING FORM OF LEASE  
BETWEEN THE RECEIVERS OF THE  
SECURITY DEPOSIT COMPANY AND THE  
SANITARY DISTRICT OF CHICAGO.

Mr. Carter, member of the Committee on Rules, presented a report of the Committee, accompanied by a form of lease for the premises now occupied by the Sanitary District in the Security Building, being for the term of one year, from May 1, 1901, to April 30, 1902, at an annual rental of \$5,260.00; and recommending that the President and Clerk of the District be authorized and directed to execute said lease in the form as submitted.

The following is the report:

CHICAGO, March 26, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Rules herewith presents a form of lease between C. T. B. Goodspeed and E. J. Skidmore, receivers of the Security Deposit Company, a corporation of the City of Chicago, and the Sanitary District, for the term of one year, commencing on the first day of May, 1901, and terminating on the 30th day of April, 1902, at the yearly rental of fifty-two hundred and sixty (\$5,260) dollars.

The Committee advises that the lease has been examined by the Attorney and that the same has been found correct and, there-

fore, recommends that the President and Clerk of the District be authorized and directed, on behalf of the District, to execute the said lease and to make payments, as provided therein, when said lease shall have been executed by the said C. T. B. Goodspeed and E. J. Skidmore, receivers of the said, the Security Deposit Company.

Respectfully submitted,

(Signed) ALEX. J. JONES,  
Chairman.

Z. R. CARTER,  
FRANK X. CLOIDT,  
WM. LEGNER,  
THOMAS J. WEBB,  
FRANK WENTER,  
THOMAS A. SMYTH,  
Committee on Rules.

(One enclosure.)

On motion of Mr. Carter, seconded by Mr. Wenter, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Carter, Cloidt, Jones, Legner, Smyth, Webb and Wenter—Seven.

*Nays*—None.

COMMUNICATION FROM LUFKIN STOCK  
YARDS AND FEEDING COMPANY.

The Clerk presented a communication from the Lufkin Stock Yards and Feeding Company, requesting permission to lay a drain pipe from track scale on their property, at Thirty-ninth Street and Forty-eighth Avenue, under the bank of the Drainage Canal.

By unanimous consent, the communication was referred to the Committee on Finance, with power to act.

COMMUNICATION FROM THE J. G. WAGNER  
COMPANY.

The Clerk presented a communication from The J. G. Wagner Company, requesting the cancellation and release of certain bonds on their contract for the construction of the Cass and Jefferson Streets Bridges at Joliet, Illinois.

By unanimous consent, the communication was referred to the Committee on Finance.

COMMUNICATION FROM THE WESTERN  
DREDGING AND IMPROVEMENT COM-  
PANY.

The Clerk presented a communication from the Western Dredging and Improvement Company, requesting that the bond on their contract for the excavation of Section "C" be released or reduced to a nominal sum.

By unanimous consent, the communication was referred to the Committee on Finance.

COMMUNICATION FROM GEORGE RICHARD-  
SON IN REFERENCE TO CONSTRUCTION  
OF THE THIRTY-NINTH STREET INTER-  
CEPTING SEWER.

The Clerk presented a communication from George Richardson, of 141 Orleans street, Chicago, requesting the Board to

make an investigation of the Thirty-ninth Street intercepting sewer, now in course of construction by the City of Chicago, alleging that the specifications are so worded as to allow of substitution of wood for brick, which would prove a source of great expense when turned over by the city authorities to the Sanitary District to maintain and keep in repairs.

On motion of Mr. Smyth, the communication was referred to the Committee on Engineering.

ADJOURNMENT.

On motion of Mr. Cloldt the Board adjourned.

*A. R. Porter.*  
CLERK

March 27,]

—7180—

1901



**PROCEEDINGS**  
—OF THE—  
**BOARD OF TRUSTEES**  
—OF THE—  
**SANITARY DISTRICT OF CHICAGO.**

APRIL 3, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Twenty-fourth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Build-

ing, Wednesday, April 3, 1901, at 2 o'clock P. M.

The President, Mr. Jones, took the chair, and the meeting being called to order there were then

*Present*—Messrs. Braden, Carter, Jones, Legner, Smyth, Webb and Wenter—Seven.

*Absent*—Messrs. Baker and Cloldt—Two.

**MONTHLY REPORT OF THE TREASURY DEPARTMENT.**

The Clerk presented a report of the Treasury Department for the month ending March 31, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

*Receipts.*

Balance on hand at date of last report.....	\$	1,723,617 86
From Collector South Town, Sanitary District Tax Account.....	\$	10,000 00
From Collector West Town, Sanitary District Tax Account.....		15,000 00
From Collector North Town, Sanitary District Tax Account.....		25,000 00
From Collector Town of Riverside, Sanitary District Tax Account.....		21 99
From Collector Town of Cicero, Sanitary District Tax Account.....		5,170 50
From Collector Town of Lake, Sanitary District Tax Account.....		25,080 87

From A. R. Porter, Clerk, Construction Account.....	\$ 118 00
From A. R. Porter, Clerk, Rent Account.....	100 00
From Chicago National Bank, Interest Account.....	1,439 85
From Illinois Trust and Savings Bank, Interest Account.....	531 95
From Equitable Trust Company, Interest Account.....	424 63
From Home Savings Bank, Interest Account.....	339 72

Total cash received for month..... \$ 83,167 51

\$ 1,806,785 37

*Disbursements.*

Clerical Department.....	\$ 906 58
Treasury Department.....	375 00
Engineering Department.....	9,927 16
Construction Account.....	57,926 50
Law Department.....	6,298 16
Land Account.....	20,875 23
General Account.....	5,055 09
Maintenance Account.....	1,145 06
Police Department.....	1,766 82
Capitalization and Maintenance of Bridges.....	26,116 40

Total cash disbursed..... \$ 130,446 99

Balance this date in banks, as per schedule endorsed hereon..... 1,676,338 38

\$ 1,806,785 37

*Schedule.*

Chicago National Bank.....	\$ 985,153 54
Illinois Trust and Savings Bank.....	265,946 06
Equitable Trust Company.....	250,000 00
Home Savings Bank.....	200,000 00
National Bank of Illinois.....	25,838 78
Total.....	\$ 1,676,338 38

Chicago, April 3, 1901.

F. M. BLOUNT, *Treasurer.*

By S. P. BLOUNT, *Assistant Treasurer.*

REPORT IN REFERENCE TO RELEASE OF BONDS ON CONTRACTS FOR SUBSTRUCTURES OF BRIDGES OF THE A., T. & S F. RY. CO., AND THE C., M. & N. R. R. CO. ON SECTION "N."

Mr. Carter, Chairman of the Committee on Finance, presented a report with reference to the communication from McArthur Brothers Company (referred to the Committee at the meeting of the Board held March 20, 1901), requesting that the sureties on its bonds for the contracts of substructures of bridges of the Atchison, Topeka and Santa Fe Railway Company and the Chicago, Madison and Northern Railroad Company, on Section "N," be cancelled and released; the report recommending that the request of said company be granted, inasmuch as the contracts have been completed.

The following is the report:

CHIC. GO, March 26, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance, to whom was referred at a meeting held March 20, 1901 (page 7106 of the Proceedings), a communication from McArthur Brothers Company, requesting that the sureties on its bond on the contract for the substructure of the bridge of the Atchison, Topeka and Santa Fe Railway Company on Section N, and the bond on the contract for the substructure of bridge of the Chicago, Madison and Northern Railroad Company, also on Section N, be cancelled and released, advises that, inasmuch as the work upon said contracts has long been completed, the request of said

company for the release of said bonds should be granted.

The Committee therefore recommends that the surety on said bonds be released from further liability thereon, and that said bonds be cancelled.

Respectfully submitted,

(Signed) Z. R. CARTER,  
*Chairman.*

FRANK WENTER,  
THOMAS J. WEBB,  
THOMAS A. SMYTH,  
WM. LEGNER.  
J. C. BRADEN,  
ALEX. J. JONES,  
*Committee on Finance.*

(Two enclosures.)

On motion of Mr. Carter, seconded by Mr. Legner, the report was adopted and the recommendations contained therein concurred in.

*Yeas* — Messrs. Braden, Carter, Jones, Legner, Smyth, Webb and Wenter—Seven.

*Nays*—None.

REPORT SUBMITTING FORM OF GROUND LEASE TO BE ENTERED INTO WITH LEOPOLD KORHERR, OF RIVERSIDE, ILL.

Mr. Carter, Chairman, presented a report from the Committee on Finance, transmitting form of ground lease, to be entered into and executed by the President and Clerk, on behalf of the Sanitary District, with Leopold Korherr, of Riverside, Ill.; the report setting forth that said lease is in conformity with the form of lease heretofore adopted by the Board.

The following is the report:

CHICAGO, April 3, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance reports herewith a form of ground lease to be executed by the District with the party hereinafter mentioned for the use of certain lands owned by the District along the banks of the Main Channel. The lands rented are to be used for farming and grazing purposes by Leopold Korherr,

of Riverside, Cook County, Illinois, at an annual rental of one hundred and forty dollars per annum, payable in advance. Said land is described as follows:

That part of the northwest quarter of Section seven (7), Township thirty-eight (38) North, Range thirteen (13) east of the Third Principal Meridian, lying northerly of a line two hundred (200) feet distant from and parallel to, measured at right angles, with the north bank of the Main Drainage Channel of the Sanitary District of Chicago, and south of the southerly right of way line of the Chicago, Santa Fe and California Railroad Company, containing forty (40) acres more or less, situated in the County of Cook and State of Illinois. Said lease also contains a clause giving the said Korherr an option of renewing said lease annually for a period of five years from February 1st, 1901.

That said lease is in conformity with the form of lease heretofore adopted by the Board of Trustees for use in cases as above.

The Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to execute, on behalf of the District, said lease to the said party, as above set forth, for the lands above described when said party on his part shall have executed the same and complied with the terms and conditions thereof, which may be deemed necessary as conditions precedent to the execution of said lease.

Respectfully submitted,

(Signed) Z. R. CARTER,  
*Chairman.*

THOMAS A. SMYTH,  
FRANK WENTER,  
J. C. BRADEN,  
THOMAS J. WEBB,  
WM. LEGNER,  
ALEX. J. JONES.  
*Committee on Finance.*

TERMS OF LEASE TO LEOPOLD KORHERR.

*This Indenture, Made this first (1st) day of March, in the year of our Lord one thousand nine hundred and one (1901), between the Sanitary District of Chicago, a corporation organized and existing under the laws of the State of Illinois, party of the first part, and Leopold Korherr, of*

Riveraide, Cook County, Illinois, party of the second part:

*Witnesseth*, That the said party of the first part, for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, his executors, administrators and assigns, has demised and leased to said party of the second part all those premises situate, lying and being in the County of Cook and the State of Illinois, known and described as follows, to-wit: That part of the northwest quarter of Section seven (7), Township thirty-eight (38) North, Range thirteen (13) east of the Third Principal Meridian, lying northerly of a line two hundred (200) feet distant from and parallel to, measured at right angles, with the north bank of the Main Drainage Channel of the Sanitary District of Chicago, and south of the southerly right of way line of the Chicago, Santa Fe and California Railroad Company, containing forty (40) acres more or less, excepting therefrom the Main Drainage Channel of the Sanitary District of Chicago and a strip of land two hundred (200) feet wide on each side of said Channel and adjacent thereto.

To have and to hold the above described premises, with the appurtenance, unto the said party of the second part, his executors, administrators and assigns, from the first (1st) day of March in the year of our Lord one thousand nine hundred and one (1901), for, and during, and until February twenty-eighth (28th), one thousand nine hundred and two (1902).

And the said party of the second part, in consideration of the leasing of the premises aforesaid by the said party of the first part to the said party of the second part, does covenant and agree with said party of the first part, its successors and assigns, to pay the said party of the first part, as rent for said demised premises, at the office of said first party in Chicago the sum of one hundred and forty dollars, payable in advance. The said party of the first part further reserves the right to go upon the said property at any time for surveying or for any other corporate use which said party of first part may desire to subject said property to. It is further covenanted and agreed by said first party that said second party shall have the option of extending this lease from year to year for a period of five years from February 1st, A.D. 1901, subject to the same covenants and agreements herein expressed, but it is expressly understood and agreed that said option is given subject to the rights of said first party as above reserved to enter upon said property or terminate this lease as herein provided. It is further agreed by the said party of the second part that if at the time of making the survey as provided for herein it is discovered that there is more tillable land in said tract than is provided for in the description of the premises herein leased, then upon due notice thereof the

said party of the second part shall pay to the said party of the first part the sum of three and fifty one-hundredth dollars per acre for all such tillable land in excess of that herein described.

*(The remaining terms of this lease are identical with those of the lease with George Nagel, as printed on page 7101 of the Proceedings of March 20, 1901.)*

On motion of Mr. Carter, seconded by Mr. Smyth, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Braden, Carter, Jones, Legner, Smyth, Webb and Wenter—Seven.

*Nays*—None.

#### APPROVAL OF BOND OF LYDON & DREWS COMPANY ON CONTRACT FOR EXCAVATION OF SOLID ROCK FROM THE SOUTH FORK OF THE SOUTH BRANCH OF THE CHICAGO RIVER.

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee recommending that the bond of Lydon & Drews Company on its contract for the excavation of solid rock from the South Fork of the South Branch of the Chicago River, near Thirty-fifth Street, the same being in the sum of \$600.00, with the City Trust, Safe Deposit and Surety Company of Philadelphia as surety, be approved, the report being accompanied by said bond and contract.

On motion of Mr. Carter, seconded by Mr. Legner, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Braden, Carter, Jones, Legner, Smyth, Webb and Wenter—Seven.

*Nays*—None.

The following is the report:

CHICAGO, April 1, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance begs leave to report that it has examined the bond given by Lydon Drews Company for the excavation of solid rock in the South Fork of the South Branch of the Chicago River, near Thirty-fifth street, said bond being in the sum of six hundred (\$600) dollars, with the City

Trust, Safe Deposit and Surety Company of Philadelphia as surety.

Your Committee finds said bond to be executed in proper form, and hereby approves the surety thereon, and recommends that the same be approved by your Honorable Body.

Respectfully submitted,

(Signed) Z. R. CARTER,  
*Chairman.*  
FRANK WENTER,  
THOMAS J. WEBB,  
WM. LEGNER,  
J. C. BRADEN,  
THOMAS A. SMYTH,  
ALEX. J. JONES,  
*Committee on Finance.*

The following is the contract:

**SANITARY DISTRICT OF CHICAGO.**

Contract and specifications for the excavation of rock from the South Fork of the South Branch of the Chicago River.

*This Agreement* Made and entered into this eleventh day of March, A. D. 1901, by and between the Sanitary District of Chicago, of the first part, and Lydon & Brews Company (a corporation), of the City of Chicago, in the State of Illinois, of the second part.

A—

**WITNESSETH:** That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided herein, to the said party of the second part by the said party of the first part, and under penalty as expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the excavation of rock from the South Fork of the South Branch of the Chicago River.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer of the Sanitary District of

Chicago, and his properly authorized agents, by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer and his properly authorized agents shall have full power to reject or condemn all material furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein expressed; and the Chief Engineer shall decide every engineering question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Wherever the words "Sanitary District" are used in this contract they shall be understood to mean the Sanitary District of Chicago, as represented by the Board of Trustees of the Sanitary District, or their duly authorized and accredited agents.

Wherever the words "Chief Engineer" or "Engineer" are used herein they shall be understood to mean the Chief Engineer of the Sanitary District of Chicago, or his properly authorized agents, limited by the particular duties intrusted to them.

Wherever the word "Contractor" is used herein it shall be understood to mean the person or persons, copartnership or corporation, entering into the contract as party of the second part.

**SPECIFICATIONS FOR EXCAVATING ROCK FROM THE SOUTH FORK OF THE SOUTH BRANCH OF THE CHICAGO RIVER.**

D—

1. The work to be done consists in the excavation of the outcrop of solid rock in the stretch of the South Fork of the South Branch of the Chicago River, commencing about seven hundred and fifty (750) feet northerly from Thirty-fifth Street and extending thence northerly about four hundred (400) feet.

The channel, which is to be sixty (60) feet wide, shall be excavated to an elevation hereinafter specified, within the lines as shown upon the plans that are on file in the office of the Chief Engineer of the Sanitary District. The average depth of excavation is about two (2) feet, and there is, approximately, fourteen hundred (1,400) cubic yards of rock to be removed.

The channel shall be dredged to a depth of not less than twenty (20) feet below Chicago datum, within the lines shown upon the plans adopted by the Sanitary District, and to such greater depth as may be ordered by the Engineer.

*Measurement of Excavation.*

2. The area to be dredged will be carefully sounded in advance of the

dredge work to ascertain the surface of the rock to be excavated, and calculations of the volume of excavated material shall be based upon the data afforded by these soundings and succeeding soundings made in rear of the dredge as the work progresses. The contractor shall excavate the rock throughout the area as shown by the plans to a plane twenty (20) feet below Chicago city datum. In order to accomplish this it will be necessary to remove the rock somewhat below this plane, but the contractor must work as close to this plane as is practicable. For all rock excavated above this plane the contractor will be paid the price hereinafter specified and agreed to between the two parties to this contract. However, such cubature of rock as it is necessary to remove in excavating to a plane twenty (20) feet below C. C. D. in order to accomplish this, it will be necessary to remove the rock somewhat below this plane, but the contractor must work as close to this plane as it is practicable. For all rock excavation above this plane the contractor will be paid the price hereinafter specified and agreed to between the two parties to this contract. However, such cubature of rock as it is necessary to remove in excavating to a plane twenty (20) feet below C. C. D., and that lies between the above mentioned plane and a plane twenty-one (21) feet below C. C. D. will be paid for at one-half ( $\frac{1}{2}$ ) the rate agreed to by the parties to this contract for rock excavation above twenty (20) feet below Chicago city datum. No material excavated below the depth of twenty-one (21) feet below C. C. D. shall be paid for unless the same is excavated under the written order of the Engineer, and likewise no excavation outside of the general lines limiting the work shall be paid for unless the same is done under the written order of the Engineer. This stretch of the South Fork has recently been dredged by the Sanitary District to the rock surface, and at the completion of this work practically no soft material, clay or other material was on the surface of the rock. If, however, it is found upon entering upon the work that there is some material overlying the rock or that sediment has settled thereon, the contractor shall remove such material free of cost to the Sanitary District. The contractor shall only be paid for actual rock removed, the surface of which shall be determined by means of a sharpened steel sounding rod.

#### *Disposition of Material.*

3. The material must be removed entirely from the Chicago River and its branches and disposed of by the contractor upon areas provided by him, or it may be deposited within the area known as the Lake Front Park, which is the portion of the Lake Front Basin which has been set apart to be filled for park purposes.

The contractor will name a price covering the excavation and disposal of the ma-

terial "upon areas provided by him," and as an alternative he will name a price covering the excavation and disposition of the material on the "Lake Front Park" area. The price bid under the last-named alternative to cover re-dredging and all cost of every kind attendant thereupon.

The Sanitary District may adopt either of these alternative methods of disposal.

#### *Extra Work.*

E—

1. All claims for extra work done by the contractor, or damages from any cause whatever, must be reported to the Chief Engineer at the time such work is done or such damages occur, and they must also be presented to him in writing at the end of the month; provided, that nothing shall be paid for as extra work that can be classified under any of the heads upon which prices are fixed by this contract.

Whenever work is required to be done which is not now contemplated or covered by the prices hereinafter given, the Chief Engineer shall fix such prices for the work as he shall consider just and equitable and the contractor shall abide by such prices; provided, he enters upon such work with full knowledge of the prices so fixed by the Chief Engineer; but if the contractor declines executing said work at the prices fixed by the Chief Engineer, then the Sanitary District may enter into contract with any person or persons for its execution the same as if this contract had never existed; and if extra work, or work not provided for in this contract, is performed by the contractor before prices have been fixed for such work, then the Chief Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said contractor shall accept such prices in full satisfaction of all demands against the Sanitary District for said extra work; provided that if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction of the same, the actual cost of the work, with ten (10) per cent. added; provided further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract. It is further agreed that in all cases of question or dispute arising or growing out of this contract in any way regarding the cost or value of extras, variations, allowance, deductions or the amount of damages in any manner growing out of the violations of this contract, the decision of the Engineer shall be final and binding on both parties hereto.

#### *Responsibility of Contractor.*

2. All the work provided for in this contract is to be done under the direction and supervision of the Chief Engineer and his properly authorized agents. The contrac-

tor is to be guided by the lines, stakes, marks and grades given by them; and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without charge therefor, to enable the Chief Engineer to properly give lines and grades to measure the work from time to time.

The contractor shall conform to all of the ordinances of the City of Chicago and the regulations imposed by the United States Government in any manner affecting this work and the execution of this contract by him will release the Sanitary District of Chicago from all responsibility to him for loss or damage occasioned by delays or inconveniences occasioned by bridges, vessels or other causes not forseen.

The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to sublet all or any part of it; it being distinctly understood and agreed that the subletting of the work covered by this contract, or any part thereof, shall, after ten (10) day's notice, work a forfeiture of the contract, at the option of the Sanitary District.

The contractor will not be allowed to assign by power of attorney, or otherwise, any portion of the moneys that may become due through the workings of this contract. In case the contractor fails to comply with the provisions of this contract, as to the progress and character of work, he shall be duly notified in writing, and ten (10) days after the giving of said notice the party of the first part may declare this contract forfeited if there is substantial failure to comply with the provisions.

#### *Explosives.*

The contractor is to furnish all explosive compound for blasting the material provided to be excavated under this contract; and, whereas, the storing, handling and use of so large an amount of explosive material requires the utmost care and discrimination, it is therefore understood and agreed that the said contractor shall arrange for the storage of all explosive materials in accordance with the ordinances and regulations of the City of Chicago. It is further understood and agreed that said explosive material shall in no case be brought unto the work except when needed for the purpose of charging the blast holes, and then only in such quantity as is needed for the particular work in hand, and that none but skilled and careful men shall be employed in the handling or use of said explosives, and that no liquid explosive shall be used.

#### *Changes in Plans.*

3. In addition to the reservations here-

inbefore made, the Sanitary District reserves the right to make alterations in the line, grade and minor details of plan, form, dimensions or material of the work herein provided for, either before or after the beginning of construction; provided, that if alterations are made, the general character of the work as a whole is not thereby changed. If such alterations diminish the quantity of the work to be done, they shall not constitute a claim for damages or for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of the work actually done, and at prices and rates established for such work under this contract. Notice of any change of plan must be given the contractor in writing. And it is expressly agreed that no alterations or additions or extra work are to be paid for unless directed in writing.

#### *Tools.*

4. The contractor is to furnish all the tools and appliances of every kind and description necessary to the full and complete carrying out of this contract.

#### *Order of Work.*

5. The contractor shall adopt such procedure in the excavation and construction of the work as shall be directed by the Chief Engineer to enable a proper measurement thereof. The contractor shall also proceed with the work in time, place and manner to be directed by the Engineer.

#### *Precautions.*

6. In those parts of the river where, in the opinion of the Engineer, the dredging operations may endanger the stability of docks, buildings and other structures, the contractor shall take whatever precautions may be necessary to render such portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work; provided, that wherever the Engineer shall decide that special works must be constructed to insure the safety of the work or the stability of docks, buildings or other structures, such special construction may, at the discretion of the Engineer, be ordered under the extra work clause hereof.

#### *Workmen.*

7. The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Chief Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work shall be employed where special skill is required.

#### *Liabilities.*

8. It is further agreed that second party shall indemnify, keep and save harmless said first party from all liabilities, judgments, costs, damages and expenses which may in any wise come against said first

party, or which may result on account of any infringement of any patent by means of the use of any materials, machinery, device or apparatus used in the performance of this contract, or of designs furnished by second party and accepted by Sanitary District; and in event of any claim or suit or action at law or equity of any kind whatsoever being made or brought against said first party, then first party shall have the right to retain a sufficient amount of money, in the same manner and upon the same conditions as hereinafter in the next following clause of this contract provided.

#### *Damages.*

9. If any damage shall be done by the contractor, or by any person or persons in his employ, to the owner or occupants of lands, or to any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, the Chief Engineer shall have the right to estimate the amount of said damages, and to cause the Sanitary District to pay the same to the said owners or occupant, and the amount so paid for such damages shall be deducted from the money due said contractor under this contract.

Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself or his employees that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for or on account of any such injuries, or such damages received or sustained by any person or persons, by or from said contractor, his servants, agents or employees, in the execution of said work; or by or in consequence of any negligence in guarding the same; or by or on account of any act or omission of said contractor, his agents or employees; and the said contractor further agrees that so much of the money due him, under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District, may be retained by the said Sanitary District until such suit or claim for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

#### *Sanitary District Law.*

10. The said contractor hereby agrees to carry on all the work provided for in this contract, in strict conformity to the requirements of the law under which the Sanitary District of Chicago is organized, entitled "An act to create Sanitary Districts and to remove obstructions from the Desplaine and Illinois Rivers," approved May 29, 1889, in force July 1, 1889, which provides in Section 11, among other things, that "No person shall be employed on said work unless he be a citizen of the United

States, or has in good faith declared his intention to become such a citizen. In all cases where an alien after filing his declaration of intention to become a citizen of the United States shall, for the space of three (3) months after he could lawfully do so, fail to take out his final papers and complete his citizenship, such failure shall be *prima facie* evidence that his declaration of intentions was not made in good faith. And that eight (8) hours shall constitute a day's work."

#### *Period Covered by Contract:*

11. The work covered by this contract must be completed and ready for acceptance by the Sanitary District not later than April 15, 1901.

#### *Time.*

12. The contractor agrees to begin any work ordered by the Engineer within fifteen (15) days of the date of such order, weather permitting.

#### *Prices.*

13. In consideration of the said work being carried on and completed in time and manner as herein specified, the said party of the first part agrees to pay to the party of the second part the following amounts for each kind of work respectively, and the said party of the second part agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the material, tools, labor, etc., to-wit:

The price bid for docking shall be for each lineal foot of dock completed in accordance with the foregoing specifications.

(a). Price per cubic yard, place measurement of rock excavated and deposited upon areas provided by the contractor, six and thirty-five one-hundredth dollars (\$6.35).

(b). Price per cubic yard, place measurement of rock excavated and deposited in the Lake Front Park area, six and fifty-five one-hundredth dollars (\$6.55).

The prices named shall include cost of all work and materials of whatever kind that shall be needed to complete the work in all details ready for the purpose for which it is intended. The prices proposed must include all royalties for patents or patented materials and appliances used in the construction of the work described in the specifications and agreements, and before final payment is made the contractor shall furnish a satisfactory guarantee against all said claims.

For all the rock excavation done, monthly estimates will be made and returned by the Chief Engineer, and payment made on or before the tenth (10th) day of each month for the work done during the preceding month to the amount of eighty-seven and one-half (87½) per cent of the value thereof.



*Failure to Complete.*

14. It is further agreed by the said party of the second part, that if the work to be done under this contract shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause excepting the acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or if at any time the Chief Engineer shall be of the opinion and shall so certify in writing to the said party of the first part, that the said work, or any part thereof, is unnecessarily or unreasonably delayed, or that the contractor is willfully and persistently violating any of the conditions or covenants of the contract, or is not executing said contract in good faith, the said party of the first part shall have the power to notify said contractor to discontinue all work, or any part thereof, as may be designated by said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams, and to obtain such machinery, implements and tools, and to purchase such material as the said Chief Engineer may deem necessary to complete the work herein described, or any part thereof. And in so doing, the said Chief Engineer may use such tools, implements and materials as may be found upon the line of work. The cost of doing such work shall be charged to the said contractor, and any moneys that may then be due, or may at any time thereafter become due to said contractor, under and by virtue of this contract or any part thereof, shall be applied by first party to the payment of such cost so far as the same shall suffice therefor, and the remainder of the cost of so completing said work, if any, shall be paid by said contractor to first party on demand.

*Payment of Laborers.*

15. Said contractor shall pay the laborers employed by him promptly at regular intervals, and at least twice each month, and shall not pay such laborers in scrip, checks or other evidences of indebtedness, nor in any manner other than with lawful currency of the United States, and if at any time during the progress of said work the said contractor shall fail or neglect to pay for labor performed, and in manner aforesaid, or for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind used or consumed in, upon or on account of the work covered by this contract, the party of the first part shall have power to pay for such labor or materials, explosives, machinery, appliances, fuel, provisions or supplies of whatever sort or kind, out of any moneys that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor. In any such case the party of the first part is hereby authorized and empowered by the said party of the second part to ascertain by its Engineer the

amounts due or owing from said contractor to any laborer or laborers, or to any person or persons, for materials, tools, explosives, machinery, apparatus, fuel, provisions or supplies of any sort or kind, or consumed upon, in or on account of the work covered by this contract, in such manner and upon such proof as he, said Engineer, may deem sufficient, and without giving any notice of such proceedings to said contractor, and the amount or amounts so found by the said party of the first part to be due and owing to said laborer or laborers, or to said persons furnishing, as aforesaid, shall be final and conclusive evidence as against said contractor, and may thereafter be paid over by the said first party to such laborer or laborers or to such persons furnishing, as aforesaid.

*Final Payment.*

16. The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until each and all of the stipulations hereinbefore mentioned are complied with, and the said Chief Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and satisfactory test and successful operation, and delivery of such certificate, pay, and it hereby binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

*Health Regulations.*

17. Said party of the second part agrees to make provisions for an ample supply of suitable drinking water for employees, and to take such means as shall effectually prevent the creation of a nuisance on any part of the right of way of said Sanitary District or adjacent thereto.

*Contractors' Bond.*

18. The contractor shall furnish a bond in the sum of six hundred (\$600) dollars, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned for the faithful performance of all the terms and conditions of this contract, and should the sureties on said bond at any time fail financially, or be, in the opinion of said Board of Trustees, insufficient security for the penalty of said bond, then, in that

case, they may on giving ten (10) days' notice thereof in writing, require said contractor to furnish a new or additional bond in the place of the bond so having become insufficient or worthless.

All erasures and interlineations made before the execution of this contract.

IN WITNESS WHEREOF, On the day of the year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President, and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set its hand and seal.

THE SANITARY DISTRICT OF CHICAGO,

By ALEX. J. JONES,  
*President.*

Attest:

[SEAL] A. R. PORTER,  
*Clerk.*

[SEAL] LYDON & DREWS CO.  
WM A. LYDON,  
*President.*  
HARRY C. LYDON,  
*Secretary.*

NOTICE OF INTENTION TO ENTER SUIT  
FOR DAMAGES AGAINST THE SANI-  
TARY DISTRICT.

The Clerk presented a communication from John Herbert, claiming damages to the amount of \$470.00 to lands along Jackson Creek, alleged to have been caused by the rising of the Desplaines River, and notifying the Board of his intention to enter suit for said amount.

On motion of Mr. Wenter, seconded by Mr. Carter, the communication was referred to the Committee on Judiciary.

ADJOURNMENT.

On motion of Mr. Braden, seconded by Mr. Smyth, the Board adjourned.

*A. R. Porter.*  
CLERK

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

APRIL 10, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Twenty-fifth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, on Wednesday, April 10, 1901, at 2 o'clock P. M.

The President, Mr. Jones, took the

chair and the meeting being called to order there were then

*Present—* Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

**MINUTES.**

On motion of Mr. Cloldt, seconded by Mr. Baker, the minutes of the regular meetings, held March 27, 1901, and April 3, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**ENGINEERING DEPARTMENT.**

Ralph Modjeski (services, March, 1901, Eight-track Bridge) .....	\$	143 89
Ralph Modjeski (services, April, 1901, Eight-track Bridge) .....		102 77
Chas. L. Safford (rubber stamps) .....		1 85
W. G. Derbyshire (bridge inspection, March) .....		100 00
M. Philbin (coal) .....		21 75
The Chicago Towel Supply Company (towel) .....		28 25
Samuel L. Hanks (ice) .....		27 00

Chas. E. Graves & Co. (timers).....	\$ 28 50
Henry Gebhardt (shelvings).....	13 90
A. Seelig (surveyor's repairs).....	10 70
The Gunthorp-Warren Printing Company (printing)....	14 00
H. Isak (services, gauger, Riverside).....	10 00
Wm. McNally (teaming).....	9 00
H. Schultz & Co. (paper boxes).....	4 00
S. J. Stebbins Company (hardware).....	62 27
Keuffel & Esser Company (drafting supplies).....	29 62
W. H. Salisbury & Co. (rubber boots).....	3 15
Emil Rudolph (north shore atlas).....	85 00
James A. Seddon (services, revising flow of Illinois River).....	300 00
James A. Seddon (traveling expenses).....	10 07
G. M. Wisner (expense).....	25 83
W. T. Keating (expenses).....	21 93
W. T. Keating (expenses).....	14 43
W. T. Keating (expenses).....	119 39
Hiero B. Herr (services, Expert Commission).....	1,166 67
T. A. Dungan (services, Expert Commission).....	300 00
Chas. G. Sachse (services, Expert Commission).....	195 00
Jessie S. Holmes (services, Expert Commission).....	114 30
Verne S. Pease (services, Expert Commission).....	89 95
	<hr/>
	\$ 2,948 22

## CONSTRUCTION ACCOUNT.

Continental Bolt and Iron Company (Pan Handle Bridge).....	\$ 9 23
Illinois Central R. R. Co., lessee, (Pan Handle Bridge).....	73 97
A., T. & S. F. Ry. Co. (Belt Railway Bridge).....	51 27
Marsh & Bingham Company (Pan Handle Bridge).....	20 51
Peter Finnegan (grading, Section 12).....	490 00
Peter Finnegan (grading, Section 12).....	468 55
Peter Finnegan (grading, Section 12).....	423 17
Peter Finnegan (grading, Section 12).....	275 00
Western Union Telegraph Company (repairing lines).....	763 45
Lydon & Drews Company (Canal Street Bridge).....	4,433 50
C. T. T. R. R. Co. (Pan Handle Temporary Bridge, Section "O").....	11 31
E. C. Shankland (inspecting Dam No. 1, Joliet).....	1,850 00
	<hr/>
	\$ 8,924 96

## LAW DEPARTMENT.

Quinn & Quinn (court costs).....	\$ 25 00
Wm. Saville (witness fee).....	5 00
Edward R. Nadelhoffer (stenographer's fee).....	85 00
John S. Runnells (salary, March, 1901).....	416 66
	<hr/>
	\$ 481 66

## GENERAL ACCOUNT.

J. L. Matthews (statistics, Illinois and Mississippi Rivers).....	\$ 250 00
W. T. Keating (expenses).....	13 07
Western Electric Company (telephone system).....	3 61
	<hr/>
	\$ 266 68

## MAINTENANCE ACCOUNT.

Hawley Down Draft Furnace Company (grate bars).....	\$ 18 78
W. H. Salisbury & Co. (rubber boots).....	4 50
Marshall Field & Co. (sheeting).....	5 70
Continental Bolt and Iron Works (repairs, Bridgeport pumps).....	7 11
Chicago Engineer Supply Company (repairs, Bridgeport pumps).....	28 50
	<hr/>
	\$ 64 59
Grand total.....	<hr/>
	\$ 12,656 11

Mr. Carter, seconded by Mr. Legner, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered:

*Yeas*—Messrs. Baker, Braden (except as to vouchers in favor of Hiero B. Herr, \$1, 166.67; T. A. Dugan, \$300.00; Charles G. Sachse, \$195.00; Jessie S. Holmes, \$114.30 and Verne S. Pease, \$39.95, for services to Expert Commission, on which Mr. Braden voted nay); Carter, Cloldt (except as to voucher in favor of E. C. Shankland, \$1,850.00 for expert services, Dam No. 1, at Joliet, on which Messrs. Carter and Cloldt voted nay); Jones, Legner, Smith, Webb and Wenter (except as to voucher in favor of E. C. Shankland, \$1,850.00 for expert services, Dam No. 1, at Joliet, on which Messrs. Webb and Wenter voted nay)—Nine.

*Nays*—None (except as above noted.)

#### CLERK'S REPORT ON EMPLOYEES.

The Clerk presented the following report, showing the number of persons employed by the District for the month ending March 31, 1901:

CHICAGO, April 5, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the month ending March 31, 1901, as the same have been reported to me:

Engineering Department.....	89
Clerical Department.....	4
Law Department.....	9
Treasury Department.....	1
Police Department.....	17
General.....	8
Maintenance.....	10
Total employes.....	88

Respectfully submitted,

A. R. PORTER,  
Clerk.

The above report was, by unanimous consent, ordered printed and placed on file.

REPORT IN REFERENCE TO COMMUNICATIONS RECEIVED FROM WILLIAM M. SPRINGER, GRANT MARSH AND THE ATTORNEY OF THE DISTRICT.

Mr. Legner, Chairman of the Committee on Judiciary, presented a report, accompanied by the communication of William M. Springer, special counsel in the case of the State of Missouri and the City of St. Louis vs. the State of Illinois and the Sanitary District of Chicago; the communication from Grant Marsh in regard to the contamination of the Mississippi and Missouri Rivers by the waters of the Drainage Canal, and the communication from the Attorney of the District; the report setting forth that the Committee had considered said communications and recommending that the same be placed on file.

The following is the report:

CHICAGO, April 10, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Judiciary to which was referred at the meeting of the Board of Trustees held January 30th, 1901, (page 6976 of the Proceedings) the communication from Grant Marsh of St. Louis, Missouri, in regard to the contamination of the Mississippi and Missouri Rivers by the waters of the Canal; also the communication from William M. Springer, Special Counsel for the District, (referred on same date) in regard to the case of the State of Missouri and the City of St. Louis vs. The State of Illinois and the Sanitary District of Chicago, and the communication from the Attorney of the District, referred at the meeting held February 6, 1901, (page 6989 of the Proceedings) respectfully reports that they have carefully considered said communications and recommends that the same be placed on file.

Respectfully submitted,

(Signed) WM. LEGNER,

Chairman.

WM. H. BAKER,  
THOMAS J. WEBB,  
A. J. JONES,  
T. A. SMYTH.

Committee on Judiciary.

(Five enclosures.)

Mr. Legner, seconded by Mr. Cloidt, moved that the report be adopted and the recommendations contained therein concurred in.

The motion prevailed unanimously and it was so ordered.

**REDUCTION OF BOND ON CONTRACT FOR CONSTRUCTION OF JEFFERSON AND CASS STREET BRIDGES, IN THE CITY OF JOLIET, ILL.**

Mr. Carter, Chairman of the Committee on Finance, presented a report in reference to the communication from The J. G. Wagner Company, requesting the release of the bonds on its contracts for the construction of the Jefferson and Cass Street Bridges, in the City of Joliet, Illinois, the same having been referred to the Committee at the meeting held March 27, 1901 (page 7128 of the Proceedings); the report recommending that inasmuch as the contracts have been completed, that the sureties on the original bonds be released when said company shall have furnished a new bond in the sum of two thousand dollars on each of said contracts.

The following is the report:

CHICAGO, April 10, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance herewith reports a communication from The J. G. Wagner Company, requesting a release of the bonds furnished by said company upon its contracts for the construction of the Jefferson Street Bridge and the Cass Street Bridge, both in Joliet.

Final payment has been made to said company upon said contracts by order of the Trustees, (pages 6586 and 6569 of the Proceedings) and the Chief Engineer has certified to the completion of the contracts as above mentioned.

The Committee advises that in its opinion it is expedient to require the execution of a smaller bond to be given in lieu of the original bonds on said contracts.

The Committee, therefore, recommends that the sureties on the original bonds be released from further liability thereon, provided said contractor shall furnish a new bond in the penal sum of two thousand (\$2,000) dollars on each of said con-

tracts, with surety thereon satisfactory to the Committee on Finance.

Respectfully submitted,

(Signed) Z. R. CARTER,  
Chairman.

WM. H. BAKER,  
J. C. BRADEN,  
WM. LEGNER,  
FRANK X. CLOIDT,  
T. A. SMYTH,  
THOMAS J. WEBB.  
Committee on Finance.

(Five enclosures.)

On motion of Mr. Carter, seconded by Mr. Legner, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

**RELEASE OF BOND OF THE WESTERN DREDGING AND IMPROVEMENT COMPANY, ON CONTRACT FOR EXCAVATION OF SECTION "C."**

Mr. Carter, Chairman, presented a report from the Committee on Finance, accompanied by a communication from the Chief Engineer, in reference to the request of the Western Dredging and Improvement Company for the release of bond on contract for the excavation of Section "C" of the Main Channel, referred to the Committee at the meeting held March 27, 1901 (page 7124 of the Proceedings); the report setting forth that said contract has been completed, and recommending that the surety on the bond of said company be released from further liability.

The following is the report:

CHICAGO, April 8, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance reports a communication from the Western Dredging and Improvement Company, requesting that the surety on its bond on the contract for Section "C" be released, advises that the District has retained out of the amount found due by the final certificate of the Chief Engineer,

the sum of seventy-five hundred (\$7,500) dollars, in pursuance of an agreement between the Western Dredging and Improvement Company and J. O. Wright (page 5223 of the Proceedings), and that the above is the only claim existing against the said Western Dredging and Improvement Company on said contract, and inasmuch as the work upon said contract has long been completed, the request of said company for the release of said bond should be granted.

The Committee, therefore, recommends that the surety on said bond be released from further liability thereon, and that said bond be cancelled.

Respectfully submitted,

(Signed) Z. R. CARTER,  
*Chairman.*  
WM. H. BAKER,  
J. C. BRADEN,  
WM. LEGNER,  
FRANK X. CLOIDT,  
T. A. SMYTH,  
THOMAS J. WEBB,  
*Committee on Finance.*

The following is the report from the Chief Engineer:

CHICAGO, April 3, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In the matter of the request of the Western Dredging and Improvement Company for release of their existing bond for ten thousand dollars on Section "C" of the Main Channel, as there are no claims of any kind pending against this section, of which I have any knowledge, or can learn, other than that of James O. Wright, which is protected by a balance of seventy-five hundred dollars, now held by this District, pending adjustment by the said Western Dredging and Improvement Company with the said J. O. Wright, it seems to me, therefore, that it is entirely proper that the bond be released.

Respectfully submitted,

ISHAM RANDOLPH,  
*Chief Engineer.*

I concur in the above recommendation.

JAMES TODD,  
*Attorney.*

(One enclosure.)

On motion of Mr. Carter seconded by Mr. Wenter, the report was adopted and

the recommendation contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

APPROVAL OF BOND OF THE CHICAGO BRIDGE AND IRON COMPANY FOR MAINTENANCE OF SUB AND SUPERSTRUCTURES OF BRIDGE AT TAYLOR STREET.

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee, transmitting the bond of the Chicago Bridge and Iron Company for the maintenance of the sub and superstructures of the bridge crossing the South Branch of the Chicago River at Taylor Street, the bond being in the sum of \$15,000.00, with the City Trust, Safe Deposit and Surety Company of Philadelphia as surety thereon, and recommending that said bond, as executed, be approved by the Board.

The following is the report:

CHICAGO, April 10, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance begs leave to report that it has examined the bond given by the Chicago Bridge and Iron Company for the maintenance of the sub and superstructure for bridge known and distinguished as the Scherzer Rolling Lift Bridge, crossing the South Branch of the Chicago River at Taylor Street, said bond being in the sum of fifteen thousand (\$15,000) dollars, with the City Trust, Safe Deposit and Surety Company, of Philadelphia, as surety.

The Committee finds said bond to be executed in proper form, and hereby approves the surety thereon, and recommends that the same be approved by your Honorable Body.

Respectfully submitted,

(Signed) Z. R. CARTER,  
*Chairman.*  
WM. H. BAKER,  
J. C. BRADEN,  
WM. LEGNER,  
FRANK X. CLOIDT,  
FRANK WENTER,  
T. A. SMYTH,  
THOMAS J. WEBB,  
ALEX. J. JONES,  
*Committee on Finance.*

(One enclosure.)

On motion of Mr. Carter, seconded by Mr. Cloldt, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

**REPORT SUBMITTING FORM OF LEASE BETWEEN THE LUFKIN STOCK YARDS AND FEEDING COMPANY AND THE SANITARY DISTRICT.**

Mr. Braden, Chairman of the Committee on Engineering, presented a report in reference to the communication from the Lufkin Stock Yards and Feeding Company, referred to the Committee at the meeting of the Board held March 27, 1901, (page 7128 of the Proceedings); the report recommending that permission be granted to run a drain pipe from the track scales of said company, through and on the land of the Sanitary District of Chicago, and that the President and Clerk of the Board be directed to execute a lease to said company in the form as submitted.

On motion of Mr. Braden, seconded by Mr. Smyth, the report was adopted and the recommendation contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

The following is the report:

CHICAGO, April 1, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering, to which was referred the communication of Lufkin Stock Yards and Feeding Company, requesting the privilege of running a drain pipe from the track scale of the said company, through and on the land of the District to the Main Channel, herewith presents a form of lease to be executed by the said District with the said Lufkin Stock Yards and Feeding Company.

The said lease is in conformity with the

form ordered by the Board of Trustees for use in cases as above.

The Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to execute, on behalf of the District, said lease, to the party as above set forth, the said party having executed the same on its part, and having complied with the necessary conditions precedent to the execution of said lease.

Respectfully submitted,

(Signed) JOS. C. BRADEN,  
*Chairman.*

Z. R. CARTER,

WM. LEGNER,

WM. H. BAKER,

FRANK WENTER,

*Committee on Engineering.*

(Two enclosures.)

The following is the form of lease submitted:

THIS INDENTURE, Made this twenty-eighth (28th) day of March, in the year of our Lord one thousand nine hundred and one, between the Sanitary District of Chicago, a corporation organized and existing under the laws of the State of Illinois, party of the first part, and Lufkin Stock Yards and Feeding Company, a corporation, party of the second part:

WITNESSETH, That the said party of the first part for and in consideration of the covenants and agreements hereinafter mentioned to be kept and performed by the said party of the second part, its successors, assigns and legal representatives has demised and leased to the said party of the second part the right and privilege to run a one and one-quarter inch drain pipe from the track scale of the said party of the second part for the purpose of draining said track scale and for no other purpose whatever. Said scale being located one hundred and sixty (160) feet west of Forty-eighth Avenue and adjoining the right of way line of the Main Drainage Channel. Said pipe to be placed three feet below surface and to run under the spoil bank of the said channel and draining therein. All being located in the County of Cook and State of Illinois.

TO HAVE AND TO HOLD The above described privilege unto the said party of the



second part, its successors, assigns and legal representatives from the twenty-eighth (28th) day of March, in the year of our Lord one thousand nine hundred and one for, and during and until March twenty-eighth (28th) in the year of our Lord one thousand nine hundred and two.

It is further expressly covenanted and agreed, however, by and between the parties aforesaid that said party of the first part, its successors or assigns reserves to itself the right at any time at its election, upon giving thirty (30) days notice thereof in writing to said second party to declare said lease terminated, and, either with or without process of law, and using such force as may be necessary in so doing to reenter said demised premises and repossess and enjoy said premises as in its first and former state.

And the said party of the second part in consideration of the leasing of the premises aforesaid by the said party of the first part to the said party of the second part does covenant and agree with said party of the first part, its successors and assigns to pay the said party of the first part as rent for said demised premises, at the office of the said first party in Chicago, the sum of one dollar, in advance. The said party of the first part further reserves the right to go upon said property at any time for surveying or any other corporate uses which said party of the first part may desire to subject said property to; and if it becomes necessary in the exercise of such corporate uses to cut the said drain pipe mentioned herein, that the same shall be done at the expense of the said second party, the said second party hereby waiving all damages which may be incurred by reason thereof.

It is further agreed by the party of the second part that neither it nor its legal representatives will underlet said privilege or any part thereof, or assign this lease, without the written assent of said party of the first part first had and obtained thereto, nor use or suffer it to be used for any other purpose than that above mentioned.

And it is further understood and agreed by the said party of the second part that neither the right given in this lease to said party of the first part to collect the rent that may be due under the terms of this lease by sale or any proceedings under the same, shall in any way affect the right of said party of the first part to declare this lease void and the term hereby created ended as above provided upon default made by said party of the second part.

It is further understood and agreed that all the conditions and covenants contained in this lease shall be binding upon the successors, assigns and legal representatives of the parties to these presents, respectively.

*In witness whereof*, The said parties have

hereunto set their hands and seals the day and year first above written.

SANITARY DISTRICT OF CHICAGO.

(SEAL) By.....  
President.

LUFKIN STOCK YARDS AND FEEDING CO.

(SEAL) By D. I. LUFKIN,  
President.

LUFKIN STOCK YARDS AND FEEDING CO.

(SEAL) By A. F. LILLY,  
Secretary.

Attest:

.....  
Clerk.

REPORT IN REFERENCE TO CHANGE OF  
PLANS FOR SUPERSTRUCTURE OF THE  
ASHLAND AVENUE BRIDGE CROSSING  
THE CHICAGO RIVER.

Mr. Smyth, member of the Committee on Engineering, presented a report from the Committee, recommending that the Chief Engineer be authorized and directed to change the plans, as originally submitted by Page & Shnoble, for the construction of the superstructure of the Ashland Avenue Bridge, and to adopt, in lieu thereof, the revised plans submitted by said Page & Shnoble, upon the execution of an agreement by the Chicago Bridge & Iron Company, that they will accept such changed plans and build thereunder, subject to all terms and conditions contained in the contract for said superstructure, and to comply with all other conditions as set forth in the report of the Committee.

The following is the report.

CHICAGO, April 10, 1901.

*To the Honorable, the Board of Trustees of  
the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering recommends that in the matter of the change of plans of the superstructure of the Ashland Avenue Bridge, that the Chief Engineer be authorized and directed to act under the authority vested in the Sanitary District by the provisions of clause 67 of the original contract, under the caption "Change of Plans," to change said plans as originally submitted by Page and Shnoble, for the construction of the superstructure of said bridge, and to adopt,

in lieu thereof, the revised plans as submitted by the aforesaid Page and Shnable for the aforesaid structure, upon the execution of an agreement by the Chicago Bridge and Iron Company, assignees of the Massillon Bridge Company, that they will accept said plans and build thereunder, subject to all the terms and conditions contained in the contract for said Ashland Avenue superstructure, and that the prices to be paid therefor shall be upon the same contract prices for each class of materials entering into the construction of said superstructure as were used by the said company in estimating upon the cost of the structure built under the original plans, as the same are set forth in the comparison of the two designs of the Ashland Avenue Bridge, as presented by the Chief Engineer of said company, which schedule is made a part of the stipulation under which this order becomes operative and binding upon both parties to the original contract.

And further, the said Bridge Company must file with the Sanitary District an acceptance of the change of plans by the Surety Company, whose bond is now on file with the District, for the faithful performance of this work.

And the said Bridge Company is further required to place gates at the approaches to said bridge, which shall work automatically in a manner satisfactory to the Chief Engineer of the District.

Respectfully submitted,

(Signed) Z. R. CARTER,  
WM. LEGNER,  
WM. H. BAKER,  
T. A. SMYTH,  
FRANK X. CLOIDT,  
FRANK WENTER,

*Committee on Engineering.*

(One enclosure.)

On motion of Mr. Smyth, seconded by Mr. Carter, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Carter, Cloldt, Legner, Smith and Wenter—Six.

*Nays*—Messrs. Jones and Webb—Two.

REPORT IN REFERENCE TO COMMUNICATION FROM GEORGE RICHARDSON REGARDING THE CONSTRUCTION OF THE THIRTY-NINTH STREET INTERCEPTING SEWER.

Mr. Braden, Chairman, presented a report from the Committee on Engineering, accompanied by the communication from George Richardson, requesting the Board to make an investigation in connection with the construction of the Thirty-ninth Street Intercepting Sewer, which was referred to the Committee at the meeting of Board held March 27, 1901, (page 7129 of the Proceedings), together with a report from the Chief Engineer of the District regarding the matter in question, and recommending that the same be printed in the Proceedings of the Board and placed on file.

Mr. Braden, seconded by Mr. Cloldt, moved that the report be adopted, and the recommendations contained therein concurred in.

The motion prevailed unanimously, and it was so ordered.

The following is the report:

CHICAGO, April 10, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Engineering, to which was referred, at the meeting of the Board of Trustees held March 27, 1901 (page 7129 of the Proceedings), the communication from George Richardson, requesting the Board to make an investigation of certain matters in connection with the construction of the Thirty-ninth Street Intercepting Sewer, herewith submits the report of the Chief Engineer in regard thereto.

The Committee advises that they have carefully considered said communication, and recommends that same be printed in the Proceedings and placed on file.

Respectfully submitted,

(Signed) JOS. C. BRADEN,  
*Chairman.*  
THOMAS A. SMYTH,  
WM. LEGNER,  
FRANK X. CLOIDT,  
FRANK WENTER,  
*Committee on Engineering.*

The following is the communication from George Richardson:

CHICAGO, March 26, 1901.

*To the Honorable Board of Drainage Commissioners:*

**GENTS**—As you are to be the guardians and care for and keep in repair the intercepting sewers after they are completed, would it not be well for you to investigate their construction as being built? Thirty-ninth Street Intercepting Sewer was originally authorized by City Council to be built of six rings of hard burned brick and to be 20 feet interior diameter; but by the manipulation of someone in authority at the City Hall, the specifications were so worded that wood was substituted for brick in the outside course, so that the sewer thus far completed has only five courses of brick instead of six, as originally authorized, and one course of wood, and on account of miscalculation on part of City Engineers the shields with which the sewer has been built was made too small, and as a result the completed sewer is only 19 feet and 6 inches internal diameter, instead of 20 feet as originally authorized. This substitution of wood for brick was made so that a certain patent shield, which the contractor was compelled to use, could be pushed forward. I am told the contractors were compelled to pay a large royalty for the use of this shield. Who shared in this royalty besides the patentee, I will leave for future investigation to develop, but this much I can say without fear of contradiction, the use of this patent shield and wood has cost the city fully \$600,000 more than the original contract price. It gives you a sewer to care for when completed that will be a constant bill of expense and worry for you, or your successors, to maintain, as all wood, which is above the normal water flow of the sewer, will eventually rot and, as a result, houses along the line of the sewer and the street must settle. This ring of wood, being 8 inches on each side of the sewer, will allow the earth to settle 16 inches when the wood rots. This settlement must prove a constant menace to all houses of any size which are on either side of Thirty-ninth Street along the line of this sewer, and the settlement of the street must keep it in an unpassable condition for years to come. This being the case, would it not be well and proper for your Honorable Board to insist that the balance of this sewer, which is to be completed by John Agnew & Co., at a big price, be completed without this wooden ring, as it can be, without any additional expense and in such a manner that it will be impossible for the earth to settle over or around it.

I enclose sketch in which Figure 1 shows Thirty-ninth Street Intercepting Sewer, with six courses of hard burned brick and with an internal diameter of 20 feet.

Figure 2 shows it as changed by engineers, and like that portion which has thus

far been built. It has five courses of brick and one of wood, and is only 19 feet and 6 inches in internal diameter.

The zigzag lines show the wood that is liable to rot first. When it does, the earth will settle 8 inches on each side or 16 inches around at least two-thirds of the sewer, or all that portion above the normal low water line.

Hoping this will receive your most worthy consideration, I am,

Yours respectfully,

GEORGE RICHARDSON,  
141 Orleans St.,  
Chicago, Ill.

The following is the report from the Chief Engineer:

CHICAGO, April 3, 1901.

*To the Committee on Engineering:*

**GENTLEMEN**—At your last meeting you referred to me a communication from Mr. Richardson, in reference to the construction of the Thirty-ninth Street conduit, which the said Richardson affirms to have been done in such manner as to endanger its safety and future usefulness. An examination of the contract and of the ordinances of the City of Chicago and the Sanitary District, as the same are published on page 4540 of the Proceedings of February 8, 1898, shows that this District has no jurisdiction over the plans or manner or construction of this conduit, but it is proper to say that this objection of Mr. Richardson, raised at this late day, is entirely groundless and without reasonable basis.

The conduit, as designed for that portion which had to be constructed as a tunnel, is 20 feet inside diameter, with five rings of brick. Outside of this brick is a layer of lagging or tubbing, as it is called. This tubbing, as originally designed, was to have been six inches thick and made of hemlock. It was found, however, that hemlock had not strength to resist the crushing strain of the hydraulic jacks, which forced the shield forward, and it was found necessary to substitute oak tubbing for this hemlock, and to make it eight inches wide instead of six. This necessitated laying one ring of brick flat, so that there are four rings laid on edge and one ring laid flat. This was done after careful consideration by the City Engineering Department and consultation with engineers of experience not employed by the city. I was one of these. The change was considered entirely within the limits of proper construction and was adopted.

As to the life of this tubbing, it is well known that timber which is always wet, not subjected to alternative periods of wet

and dry exposure, is practically indestructable. All of this tubbing is below the line of saturation, the greater part of it is overlaid by from 12 to 14 feet of water bearing sand. These being the facts, I have no hesitancy in recording my belief that the methods of construction pursued have been wise and satisfactory.

A description of the shield, which was used in this case, is found in the report of the Commissioner of Public Works for 1898, on page 226, accompanied by an illustration showing the method of its use. Mr. Richardson's motives in this matter may be entirely pure and unimpeachable, but it is known that he had ideas for a shield for use in this work which were not recognized as being feasible or desirable for use in its construction.

Respectfully submitted,

(Signed.) ISHAM RANDOLPH,  
Chief Engineer.

#### REQUISITION.

The Clerk presented the following requisition:

No. 601. From Engineering Department (for out fit in connection with the work on bridges on the Chicago River).....\$52.50

Mr. Braden, seconded by Mr. Wenter, moved that requisition No. 601, as read and shown above, be allowed.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Webb and Wenter—Eight.

*Nays*—None.

ORDER FOR THE PAYMENT OF SEMI-ANNUAL INTEREST DUE APRIL 1, 1901, ON THE ELEVENTH ISSUE OF OUTSTANDING BONDS OF THE SANITARY DISTRICT OF CHICAGO.

Under the head of new business, Mr. Carter presented and, seconded by Mr. Wenter, moved the adoption of the following order:

*Ordered*, That the Clerk be, and he hereby is, instructed to draw a warrant, payable to the order of the Treasurer of the District, for the sum of forty-seven thousand five hundred dollars (\$47,500.00), to reimburse him for the payment by him of the semi-annual interest, due April 1, 1901, on the eleventh issue of bonds of the Sanitary District of Chicago outstanding, being

\$2,875,000.00 at four per cent per annum said amount to be charged by the Clerk to the proper account.

The roll being called, the order as presented was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

COMMUNICATION FROM THE CLERK OF THE DISTRICT IN REFERENCE TO ADVERTISEMENT FOR BIDS FOR THE SALE OF STONE AND EARTH ON THE BANKS OF THE MAIN CHANNEL.

The following communication was received from the Clerk of the District.

CHICAGO, April 10, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg to report that no bids were received for the purchase of stone and earth on the banks of the Main Channel of the Sanitary District, in response to the advertisement of March 6, 1901.

Respectfully submitted,

A. R. PORTER,  
Clerk.

On motion of Mr. Wenter, seconded by Mr. Carter, the communication was ordered printed and placed on file.

MATTER OF THE SALE OF STONE AND EARTH ALONG THE BANKS OF THE MAIN CHANNEL REFERRED TO THE COMMITTEE ON ENGINEERING.

Mr. Baker moved that the question of re-advertising for the sale of stone and earth along the banks of the Main Channel, and the conditions under which it may be removed by prospective bidders, be referred to the Committee on Engineering, with power to act.

Seconded by Mr. Webb.

Mr. Carter moved, as a substitute for the whole, that the matter in question be referred to the Committee on Engineering, with power to receive proposals and give consideration to bids that may be received, and report to the Board.

Seconded by Mr. Legner.

The roll being called, the substitute motion made by Mr. Carter, was adopted.

*Yeas*—Messrs. Braden, Carter, Cloldt, Legner and Smyth—Five.

*Nays*—Messrs. Baker, Jones, Webb and Wenter—Four.

**RE-LOCATION OF THE CANAL STREET BRIDGE.**

The Chief Engineer made a verbal recommendation to the effect that the Canal Street Bridge be re-located and placed at the south line of the river, on the line of the adopted channel.

Mr. Smyth, seconded by Mr. Legner,

moved that the recommendation of the Chief Engineer be concurred in.

The roll being called the motion was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

**ADJOURNMENT.**

On motion of Mr. Wenter, seconded by Mr. Cloldt, the Board adjourned.

*A. R. Porter.*  
CLERK

April 10,]

—7152—

[1961

**PROCEEDINGS**  
 —OF THE—  
**BOARD OF TRUSTEES**  
 —OF THE—  
**SANITARY DISTRICT OF CHICAGO.**

APRIL 17, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Twenty-sixth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security

Building, Wednesday, April 17, 1901, at 2 o'clock P. M.

In the absence of the President, the Vice-President, Mr. Baker, took the chair and the meeting being called to order, there were then

*Present*—Messrs. Baker, Braden, Carter, Legner, Smyth, Webb and Wenter—Seven.

*Absent*—Messrs. Jones and Cloldt—Two.

**VOUCHERS.**

The Clerk presented the following vouchers:

**ENGINEERING DEPARTMENT.**

A. S. Cameron (Expert Commission) .....	\$	50 00
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**CLERICAL DEPARTMENT.**

American Water Company (water) .....	\$	10 13
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**GENERAL ACCOUNT.**

Samuel L. Hanks (ice) .....	\$	15 00
The Chicago Daily Republican (advertising) .....		17 00

Youghiogheny and Lehigh Coal Company (coal, Juliet).....	\$ 22 75	
Security Building Receivership (rent offices, April, 1901).....	518 88	
John F. Higgins (printing Proceedings).....	398 96	
		\$ 967 04

## MAINTENANCE ACCOUNT.

Henry Maske (repairing stacks, Canal Street Station).....	\$ 850 00	
Grand total. ....	\$ 1,877 17	

Mr. Carter, seconded by Mr. Legner, moved that the vouchers as read and shown above be approved and ordered paid.

The roll being called, it was so ordered.

Yeas—Messrs. Baker, Braden, Carter, Legner, Smyth, Webb and Wenter—Seven.

Nays—None.

## ADJOURNMENT TO SPECIAL TIME.

Mr. Carter, seconded by Mr. Wenter, moved that when the Board adjourns, it shall adjourn to meet on Monday, April 22, 1901, at 8 o'clock P. M.

The roll being called, the motion was adopted.

Yeas—Messrs. Baker, Braden, Carter, Legner, Smyth, Webb and Wenter—Seven.

Nays—None.

PETITION PROTESTING AGAINST THE ENACTMENT OF THE PROPOSED LEGISLATION PENDING IN THE GENERAL ASSEMBLY AT SPRINGFIELD EXTENDING THE BOUNDARIES OF THE SANITARY DISTRICT OF CHICAGO.

Mr. Carter presented a petition signed by the members of a committee of twelve, appointed by the City Council of the City of Evanston, to consider the question of annexation to the Sanitary District. The protest being based on the ground that the bill provides for the annexation of territory only in Cook County, whereas it should embrace the County of Lake; and is also unsatisfactory to the petitioners in that it provides for a special tax to be levied on the annexed territory for the payment of past expenditures by the Sanitary District.

The following is the petition:

*To the Honorable President and Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your petitioners, mem-

bers of a committee of twelve appointed by the City Council of the City of Evanston to consider the question of annexation to the Sanitary District, respectfully represent unto your Honorable Body that a bill is now pending before the legislature providing for the annexation of territory to your district; that the City of Evanston is included in a portion of the territory whose interests are to be affected by this bill, and the same is not satisfactory to your Committee in that it provides for the annexation of territory only in Cook County, whereas it should embrace the County of Lake, so that the whole North Shore to the State Line can be placed under the control of the Sanitary District. Your Committee is of the opinion that this is to the interest of your Sanitary District as well as to the interest of the City of Evanston.

The bill is also unsatisfactory to your Committee in that it provides for a special tax to be levied upon the annexed territory for the payment of past expenditures by the Sanitary District. Your Committee is of the opinion that this provision of the bill is clearly illegal, and that such an act upon the statute books, if an attempt were made to enforce it, would simply result in expensive litigation and a complication of the whole question of the protection of the lake from the sewerage outfall on the north and south of the present Sanitary District.

Your Committee further represents that this bill has been recommended by the House Committee and passed on to the third reading; that it was also introduced in the Senate and referred to the Drainage Committee, and that it is highly important that before the Drainage Committee of the Senate shall report upon said bill, that a hearing shall be given to both your Sanitary District and the territory which the bill will affect.

Your Committee therefore prays that your Honorable Body will pass a resolution



requesting the Chairman of the Drainage Committee of the Senate to not report upon the measure now pending before it, without an opportunity for hearing both your Honorable Body and the other municipalities, or portions thereof, situated in the territory to be affected by the legislation, with a view to securing the best possible legislation for all parties interested.

Respectfully submitted,

JOHN T. BARKER,

*Chairman.*

VOLNEY W. FOSTER,

ALEX. CLARK,

MASON B. LOOMIS,

H. H. C. MILLER,

N. L. STOW,

WM. A. DYCHE,

D. S. McMULLEN,

JAS. A. PATTEN.

THOMAS BATES,

*Mayor.*

Mr. Carter, seconded by Mr. Wenter, moved that the above petition be referred to the Committee on Annexation, with power to act, and to report its action to the Board.

The roll being called it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Legner, Smyth, Webb and Wenter—Seven.

*Nays*—None.

COMMUNICATION FROM ALDERMAN  
EDWARD R. LITZINGER.

The Clerk presented a communication from Edward R. Litzinger, Alderman of the Fifth ward, Chicago, requesting the Board to erect a temporary bridge or provide some other means for the general public to cross the Chicago River at Ashland Avenue during the construction of the new bridge at said street.

Mr. Wenter, seconded by Mr. Legner, moved that the communication be referred to the Committee on Engineering.

The motion prevailed unanimously and it was so ordered.

ADJOURNMENT.

On motion of Mr. Smyth, seconded by Mr. Wenter, the Board adjourned.

*A. R. Porter,*  
CLERK

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April 17,]

—7156—

[1901

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

APRIL 22, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**ADJOURNED MEETING.**

The Adjourned Session of the Five Hundred and Twenty-sixth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Monday, April 22, 1901, at 3 o'clock P. M., pursuant to motion.

The President, Mr. Jones, took the chair, and the meeting being called to order there were then

*Present*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

COMMUNICATION FROM PRESIDENT JONES TRANSMITTING ORDER OF THE SECRETARY OF WAR DIRECTING THE SANITARY DISTRICT OF CHICAGO TO REDUCE THE FLOW OF WATER FROM THE CHICAGO RIVER INTO THE DRAINAGE CANAL TO 200,000 CUBIC FEET PER MINUTE.

President Jones presented a communication transmitting the order of Elihu Root, Secretary of War, directing the Sanitary District to regulate the discharge of water from the Chicago River into the Drainage Canal so that the maximum flow will not exceed 200,000 cubic feet per minute; and informing the Board of Trustees that the order of the Secretary of War has been complied with, and recommending that the order and accompanying communication from Major J. H. Willard,

Corps of Engineers, U. S. A., be printed in the Proceedings of the Board and placed on file as a part of the records of the Sanitary District.

Mr. Braden, seconded by Mr. Smyth, moved that the order of the Secretary of War and the accompanying communications be received, printed in the Proceedings of the Board and placed on file.

The motion prevailed unanimously and it was so ordered.

The following is the communication from President Jones:

CHICAGO, April 22, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to transmit herewith a communication of Major J. H. Willard, Corps of Engineers, U. S. A., transmitting an order of the Secretary of War, dated April 9, 1901, modifying and regulating the discharge of water from the Chicago River into the Drainage Canal so that the maximum flow shall not exceed 200,000 cubic feet of water per minute.

The order of the Secretary of War was received at 9 o'clock A. M., Saturday, April 20, 1901, and I immediately instructed the Engineering Department of the District to comply with said order. I recommend that the correspondence, and order herewith submitted, be printed in the Proceedings of the Board and placed on file as a part of the permanent records of the Sanitary District of Chicago.

Respectfully submitted,

ALEX. J. JONES,  
*President.*

The following is the communication from Major J. H. Willard, Corps of Engineers, U. S. A.:

CHICAGO, Ill., April 10, 1901.

*Alex. J. Jones, President Board of Trustees, Sanitary District of Chicago, Security Building, Chicago, Ill.:*

SIR—I have the honor to enclose herewith, by order of the War Department, an order from the Secretary of War modifying the permit granted to the Sanitary District of Chicago to open an artificial channel from Robey Street, Chicago, to Lockport,

Illinois, and cause the waters of Chicago River to flow into the same, dated May 8th, 1889, and to respectfully request that receipt of same be acknowledged.

Very respectfully,

(Signed) J. H. WILLARD,

*Major Corps of Engineers, U. S. A.*

(One enclosure.)

The following is the order of the Secretary of War:

WHEREAS, Under date of May 8th, 1899, the Secretary of War granted permission unto the Sanitary District of Chicago to open the artificial channel from Robey Street, Chicago, to Lockport, and cause the waters of Chicago River to flow into the same, upon the following conditions *inter alia*:

"2. That if, at any time, it becomes apparent that the current created by such drainage works in the South and Main Branches of the Chicago River, be unreasonably obstructive to navigation or injurious to property, the Secretary of War reserves the right to close said discharge through said channel or to modify it to such extent as may be demanded by navigation and property interests along said Chicago River and its South Branch"; and

WHEREAS, It is alleged by various commercial and navigation interests that the present discharge from the river into the Drainage Canal sometimes exceeds three hundred thousand (300,000) cubic feet per minute, causing a velocity of nearly three (3) miles per hour, which greatly endangers navigation in the present condition of the river; now, therefore,

This is to certify that the Secretary of War, upon the recommendation of the Chief Engineers, hereby directs said Sanitary District to regulate the discharge from the river into the Drainage Canal so that the maximum flow through the Chicago River and its South Branch shall not exceed two hundred thousand (200,000) cubic feet per minute.

Witness my hand this ninth day of April, 1901.

ELIHU ROOT,  
*Secretary of War.*

**REPORT SUBMITTING RECOMMENDATIONS  
TO BE COMMUNICATED TO THE MEMBERS  
OF THE SENATE AND HOUSE OF REPRESENTATIVES  
IN REFERENCE TO THE  
PASSAGE OF LEGISLATION BY THE  
GENERAL ASSEMBLY AT SPRINGFIELD  
FOR THE FINANCIAL RELIEF OF THE  
SANITARY DISTRICT.**

Mr. Carter, Chairman of the Committee on Finance, presented a report of the Committee submitting recommendations to be communicated to the members of the Senate and House of Representatives, appealing for the passage of such legislation by the General Assembly, now in session at Springfield, as will provide financial relief for the Sanitary District and allow the necessary work of the District to proceed for the next two years; the report setting forth the needs of the Sanitary District for additional revenue to improve the Chicago River so that it may carry without injury to navigation the full volume of water required by the State law; and further recommending that the members of the Board of Trustees of the Sanitary District visit the State Capital and use all honorable and legitimate means to secure the legislation recommended in the report of the Committee.

Mr. Carter, seconded by Mr. Legner, moved that the report as presented be adopted and the recommendations contained therein concurred in.

The roll being called, the report was adopted by the following vote:

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

The following is the report of the Committee:

CHICAGO, April 22, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance begs leave to state that it has duly considered the financial situation of the Sanitary District, and believes the time has arrived when your Honorable Body must take formal action appealing to the General Assembly now in session at Springfield for such legislation as will

allow the necessary work of the Sanitary District to proceed for the next two years.

On March 26th, at the suggestion of the Honorable O. N. Carter, Chairman of the Expert Commission, and with the approval of the undersigned, there were introduced in the House of Representatives at Springfield three measures affecting the affairs of the Sanitary District, which were intended to be entirely tentative in their nature, and to be abandoned or urged for passage at a later date, as exigencies might arise and as the judgment of your Honorable Body might determine. One of these measures relates to the question of annexation of territory to sanitary districts, and is not a proper subject of consideration for this Committee. The two other measures, however, were devised for the financial relief of the Sanitary District—one by providing for the removal of the present \$15,000,000 limitation of bonded indebtedness, that being the bill which your Committee favors in the event of the adoption of an amendment to the general revenue law limiting the aggregate rate of taxation to five per cent, and the other designed for emergency in case of the failure of this amendment to the revenue law by providing for the improvement of the Chicago River by the levy of an increased tax of one-half of one per cent per annum, to be devoted specially to the removal of obstructive center-pier bridges and substitution of modern structures and other improvements of the Chicago River to permit the flow of water required by law without unreasonable obstruction to navigation. This bill also specifically affirms the authority of the Sanitary District to improve navigable streams by the removal and rebuilding of bridges or such other improvements as might be necessary to provide for a greater flow of water through the Drainage Canal. These bills are now on the calendar of the House of Representatives and have been held in abeyance for the past two weeks until some indications might be received of the probable fate of the "five per cent limitation bill," now being urged by the Board of Review and real estate interests of Cook County to supply the deficiency of the general revenue act occasioned by the unconstitutionality of Section 49 of that law. This bill is still pending at an uncertain stage, and after due consideration of all the circumstances

and necessities of the Sanitary District and the approaching adjournment of the General Assembly, your Committee makes the following recommendations with the request that they be adopted as determining the policy to be pursued by the Sanitary District in appealing for legislative relief at the State Capital.

First—That the Board of Trustees continue earnestly to co-operate with the Board of Review and the real estate interests of Cook County and the City of Chicago in urging the passage of Senate bill No. 214, otherwise known as the "five per cent limitation bill."

Second—That in the event of the *passage* of the "five per cent limitation bill" the Board of Trustees urge: (a) the passage of House bill No. 688, known as the bond bill, with an amendment thereto, providing that the Sanitary District bond issue shall be limited to \$20,000,000 instead of \$15,000,000, as provided by the existing law; (b) the passage of House bill No. 689, designed for the improvement of the Chicago River, after first amending the bill by striking out so much of said measure as provides for the increased tax of one-half of one per cent per annum and retaining only that section which specifically affirms the authority of the Sanitary District to improve navigable streams by the condemnation of property, the removal of obstructive bridges and the building of modern bridges, and such other improvements as may be necessary to secure a greater flow of water.

Third—That in the event of the *defeat* of the "five per cent. limitation bill," the Board of Trustees abandon entirely House bill No. 688, known as the bond bill, and urge the passage of House bill No. 689, known as the Chicago River bill, after the adoption of an amendment thereto limiting the increased tax of one-half of one per cent. per annum to the years 1901 and 1902.

It is apparent, of course, that in the event of the defeat of the "five per cent. limitation bill" no benefit can be derived from the passage of the bond bill, as the valuation of property within the Sanitary District are already so much reduced that the five per cent. constitutional limitation only

affords an aggregate issue of approximately \$18,000,000, while the existing Sanitary District law would permit an issue of \$15,000,000, unless restricted by the constitutional limitation. Naturally, therefore, no benefit would be realized by extending the legal limitation from \$15,000,000 to \$20,000,000 if the Board of Review's revenue bill, designed to increase valuations by making a five per cent. limitation of taxes, should be defeated. The only method then remaining to increase the financial revenues of the Sanitary District will be by the passage of the river bill with the provision for an increased tax of one-half of one per cent. for the years 1901 and 1902. While it is not pretended by your Committee that this increased tax for two years will do more than permit the continuation of the work of improvement of the Chicago River for the ensuing two years, it is the firm conviction of the undersigned that, if the "five per cent limitation bill" should be defeated at this session, some revenue legislation will most certainly be enacted two years hence which will give relief to the Sanitary District and all the other municipalities within the limits of Cook County which are now so sadly suffering from a depletion of revenue. Therefore, in the belief that the taxpayers' burdens should be made as light as possible, your Committee believes that only the relief necessary to continue the important work of the Sanitary District for the ensuing two years should be asked of the General Assembly at this time, and that further legislation should be postponed until a general revenue amendment affecting and relieving all the municipalities of this community shall be enacted—when the needs of the Sanitary District may, let us hope, be met by an increased bonded indebtedness rather than by an increased burden of taxation upon the present generation, which has already contributed so generously to this great sanitary enterprise.

Your Committee recommends that this report be adopted by your Honorable Body and that the recommendations herein contained be communicated by the officers of the Sanitary District to the members of the Senate and House of Representatives, and that the members of the Board of Trustees of the Sanitary District of Chicago visit the state capital and use all honorable and

legitimate means to secure the legislation herein recommended.

Respectfully submitted,

(Signed)

Z. R. CARTER,  
*Chairman.*

WM. H. BAKER,

JOS. C. BRADEN,

WM. LEGNER.

THOMAS J. WEBB,

FRANK WENTER,

THOMAS A. SMYTH,

FRANK X. OLOIDT,

ALEX. J. JONES,

*Committee on Finance.*

MOTION IN REFERENCE TO RESUMING  
OPERATION OF THE BRIDGEPORT PUMP-  
ING WORKS.

Under the head of new business, Mr. Wenter, seconded by Mr. Webb, moved that the Sanitary District resume the operation of the Bridgeport Pumping Works, with the view of opening navigation on the Illinois and Michigan Canal until such a time as a conference can be arranged with the Canal Commissioners on the ques-

tion of continuing the pumping of water into the Canal.

The roll being called, Mr. Wenter's motion was lost.

*Yeas*—Messrs. Baker, Carter, Webb and Wenter—Four.

*Nays*—Messrs. Braden, Oloidt, Jones, Legner and Smyth—Five.

NEXT REGULAR MEETING OF THE BOARD  
TO BE HELD SATURDAY, APRIL 27,  
1901.

Mr. Braden, seconded by Mr. Smyth, moved that the rules relating to the holding of the regular meeting on Wednesday, April 24, 1901, be suspended, and that the next regular meeting of the Board be held on Saturday, April 27, 1901, at 1 o'clock P. M.

The roll being called, the motion was adopted unanimously.

ADJOURNMENT.

On motion of Mr. Braden, seconded by Mr. Smyth, the Board adjourned.

*A. R. Porter.*  
CLERK

April 22,]

—7162—

[1901



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

APRIL 27 AND 29, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Twenty-seventh Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Saturday, April 27, 1901, at 1 o'clock P. M., pursuant to motion.

President Jones called the meeting to order. No quorum being present, on motion of Mr. Braden, seconded by Mr. Smyth, the Board adjourned to meet Monday, April 29, 1901, at 2 o'clock P. M.

*A. R. Porter.*  
CLERK

**ADJOURNED MEETING.**

The Adjourned Session of the Five Hundred and Twenty-seventh Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Monday, April 29, 1901, at 2 o'clock P. M., pursuant to motion.

President Jones took the chair and the meeting being called to order, there were then

*Present*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine members.

**MINUTES.**

On motion of Mr. Carter, seconded by Mr. Smyth, the minutes of the regular meetings held April 10 and 17, 1901, and of the adjourned regular meeting held April 22, 1901, were approved as printed.

## VOUCHERS.

The Clerk presented the following vouchers:

## PAY ROLLS.

Engineering Department (Chief Engineer's, April, 1901).....	\$2,989 58	
Engineering Department (Div. of Construction, April, 1901).....	2,551 24	
Engineering Department (Expert Commissioners, April, 1901).....	313 80	
Engineering Department (Expert Commission, Discharge roll, April, 1901).....	138 75	
	<hr/>	\$ 5,993 37
Clerical Department (Clerk's roll, April, 1901).....		998 34
Treasury Department (Treasurer's roll, April, 1901).....		375 00
Law Department (Attorney's roll, April, 1901).....		1,976 68
General Account (General roll, April, 1901).....	\$ 200 00	
General Account, (Special roll, April, 1901).....	148 00	
General Account, (Trustees' roll, April, 1901).....	2,333 34	
	<hr/>	2,681 34
Police Department (Marshal's roll, April, 1901).....	\$1,622 18	
Police Department (Discharge roll, April, 1901).....	27 78	
	<hr/>	1,649 96
Maintenance Account (Controlling Works, April, 1901).....	\$ 550 00	
Maintenance Account (Bridgeport Pumping Station, April, 1901).....	220 00	
	<hr/>	770 00
Total.....		\$ 14,444 69

## CONSTRUCTION ACCOUNT.

Heldmaier & Neu (Sec. 17, April 15, 1901).....	\$6,545 00	
Heldmaier & Neu (Account reserved percentage, Sec. 17).....	2,000 00	
Lydon and Drews Company (Chicago River improvement).....	247 02	
	<hr/>	\$ 8,792 02

## ENGINEERING DEPARTMENT.

George Birkhoff, Jr., (services appraising river property).....	\$ 750 00	
Edgar M. Snow (services appraising river property).....	750 00	
James B. Galloway (services appraising river property).....	758 00	
George S. Baker (services estimating right of way through Jefferson, Niles, Evanston, etc).....	747 50	
Joseph J. Jones (typewriting for Expert Commission).....	105 00	
	<hr/>	\$ 3,110 50

## CLERICAL DEPARTMENT.

The Chicago Towel Supply Company (towels, Jan. Feb. March).....	\$ 9 75	
A. P. Little (typewriting paper).....	42 85	
Cameron, Amberg & Co. (stationery).....	23 92	
	<hr/>	\$ 76 52

## LAW DEPARTMENT.

Cameron, Amberg & Co. (stationery).....	\$ 18 20	
American Water Company (water).....	3 87	
Jacobs, Coles & Co. (stationery).....	1 25	
	<hr/>	\$ 23 82

## TREASURY DEPARTMENT.

Art Metal Construction Company (vault fittings).....		54 00
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## POLICE DEPARTMENT.

E. J. Coen (expense).....		102 92
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## GENERAL ACCOUNT.

Inter-Ocean Publishing Company (advertising).....	\$ 12 30
Chicago Chronicle Company (advertising).....	16 40
Abendpost Company (advertising).....	17 00
Freie Presse (advertising).....	20 68
Chicago Journal (advertising).....	18 80
The National Banker (advertising).....	24 00
Chicago Evening Post Company (advertising).....	21 30
	<u>\$ 180 48</u>
Grand total.....	<u>\$ 26,733 90</u>

Mr. Carter, seconded by Mr. Webb, moved that the vouchers as read and shown above be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, (except as to Engineering Department Regular Pay Roll of Expert Commissioners for \$313.80; the Engineering Department Discharge Pay Roll of Expert Commissioners for \$138.75; the vouchers of Geo. Birkhoff, Jr., for \$750.00; Edgar M. Snow for \$750.00; services appraising river property; the voucher of Geo. S. Baker for \$747.50, services estimating right of way; and the voucher of Joseph J. Jones for \$106.00, typewriting for Expert Commissioners, on which Mr. Braden voted nay), Carter, Choldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None (except as above noted.)

## MONTHLY REPORT OF THE LAW DEPARTMENT.

The Clark presented the report of the Law Department for the month of March, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

CHICAGO, April 15th, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I have the honor to transmit the report of the Law Department for the month of March, 1901.

The following are the expenses of the Law Department:

Court expenses.....	\$ 267 85
General expenses.....	331 45
Abstracts of title, balance.....	1,850 00
Legal services.....	720 41

Stationery, printing, law books and book case.....	\$ 104 80
Pay roll.....	1,988 00
	<u>\$ 4,752 01</u>

*Land Account.*

Robert Law et al .....	\$ 20,875 28
	<u>\$ 25,627 24</u>

The following law suits were begun during the month:

The Hawgood & Avery Transit Company of Cleveland vs. The Sanitary District of Chicago, a municipal corporation, and the Pennsylvania Steel Company, a corporation, No. 9341 in the District Court of the United States. This is a proceeding in admiralty to recover damages amounting to \$1,479.45 to the Steamer "S. S. Curry," caused by said steamer getting jammed between the Chicago Terminal Bridge and the cofferdam constructed in the river by the Pennsylvania Steel Company.

Pennsylvania Company, a corporation, vs. The Sanitary District of Chicago and Lydon & Drews Company, No. 408, before Justice Eugene A. Mahlot. This is a suit upon an account stated, for \$200.

George Beidler vs. The Sanitary District of Chicago, Gen. No. 214814, in the Circuit Court of Cook County. This is a suit for \$10,000.00 for damages to the real estate of the plaintiff, caused by lowering the water in Sampson's Canal.

In the case of Wright, Meysenberg, Sinclair & Carry vs. The Sanitary District of Chicago, upon motion of the District a rule on the plaintiff to file a bill of particulars in twenty days was entered.

The cases of James Ray vs. The Sanitary

District, and Jacob Adler vs. The Sanitary District, in the Circuit Court of Will County, were reached for trial but continued on application of the District, as the premises in question were submerged to such an extent as to render it impossible for the jury to intelligently view them.

In the case of Gahan & Byrne vs. The Sanitary District, upon motion of the defendant, a rule was entered upon the plaintiffs to file a bill of particulars.

In the case of John Lussem vs. The Sanitary District of Chicago, an appeal bond has been filed and approved by Judge Neeley, and the appeal has been perfected by filing the record in the Supreme Court. Briefs on behalf of the District are being prepared.

In addition to the above numerous contracts, leases and opinions have been prepared, the details of the litigation and the regular routine work attended to.

Respectfully submitted,

(Signed)

JAMES TODD,

Attorney.

#### MONTHLY REPORT OF THE ENGINEERING DEPARTMENT.

The Clerk presented the report of the Engineering Department for the month of March, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

CHICAGO, April 22, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith present the report of the Engineering Department for the month of March, 1901, giving the detailed operations of same.

The value of construction work done during the month was \$103,385.31. Vouchers were issued on this account to the amount of \$102,744.81.

The engineering expenses for the month were \$11,172.84, divided as follows: Salaries, \$6,148.38; supplies, etc., \$5,024.46. Vouchers for the capitalization and maintenance of bridges were issued to the amount of \$26,116.40. The expenses at the

Bridgeport Pumping Works were \$349.28. Details of the above figures are given in tabulated statements submitted herewith.

#### *Division of Construction.*

*Chicago River*—The contractor for widening and docking the river did very little work during the month. No estimate was issued.

The contractor for the superstructure of the C. T. T. R. Co.'s bridge unloaded and placed segmental girders on the west side of the bridge on the 4th and 6th, and connected and riveted the counter-weight boxes to same. Erection was resumed on the east side on the 12th, and at the end of the month the span was up to parts L2-U1, with three panels of floor system in place. Owing to bad weather the contractor was unable to work on five days in the latter part of the month.

Lydon & Drews Company, the contractor for the Canal Street Bridge, was at work wrecking the old bridge preparatory to the foundation work on the new one. About 75 per cent of this work was completed during the month; 1,200 cubic yards of material was excavated on the north side of the river.

Page & Shnable, the contractors for the Ashland Avenue Bridge, began operations on the 28th. On that day was begun the work of removing the old structure preparatory to the foundation work on the new one.

On the 29th, Lydon & Drew Company, the contractor for the Main Street Bridge, began the removal of the old structure.

*Section "O"*—Steel was laid on all of the tracks across the Eight-Track Bridge during the month. A portion of the structure was painted. On the 16th, two heavy trains were placed on one of the bridges, which stood the test successfully. Some repairing and redriving was done on the temporary trestles.

*Section "K"*—M. H. McGovern & Co., contractors for grading the roadbed for the spur track on the east end of this section, began operations on the 19th and worked a small force to the end of the month.

*Section 12*—The contractor for the removal of the scales at Romeo entirely completed his work during the month.

*Section 17*—No work was done during the month by the contractors for this section.

*General.*

*New Telephone System*—About 1,400 feet of wire was stolen during the month and same was replaced by repair men.

*Bridgeport Pumping Works*—A small force of men worked from the 10th to the end of the month in getting the plant in running order.

Besides the work done in connection with the operations of the contractors, the engineer corps was principally engaged in the taking of flow measurements and of high water marks in the Illinois Valley; in staking out center lines and reference points for the new bridges to be built across the Chicago River; in computing finals for Section 17, and in making sundry estimates and reports for the Expert Commission.

*Division of Designing and Drafting.*

The following drawings were made: Map of Adler property near Joliet, and sundry plats for Expert Commission.

The work of checking the State Street Bridge plans was carried on from the 1st to the 20th, at which latter date they were completed.

The work of checking the Eighteenth Street Bridge plans was carried on from the 20th to the end of the month.

*Division of Records.*

The work of this division for March was carried on in the usual manner.

I estimate the expenses for the month of April will be \$70,000 00.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer.

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—QUANTITIES.

*Amount Done During March, 1901.*

DESIGNATION.	Glacial Drift.
Canal Street Bridge, Chicago River.....	1,200
Romeo Road Bridge, Main Channel, Sec. 12.....	294
Total.....	1,494

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—VALUES.

*Amount Earned During March, 1901.*

DESIGNATION.	CHICAGO RIVER.		MAIN CHANNEL.		Totals.
	Dredging, Etc.	Permanent Bridges.	Temporary Bridges.	Permanent Bridges.	
Chicago River, dredging, etc.....	\$ -118 00				\$ -118 00
Section O.....			\$ 29 63		29 63
Taylor Street Bridge, Chicago River.....		\$ 4,627 86			4,627 86
C. T. T. R. R. Co.'s Bridge, Chicago River.....		92,065 10			92,065 10
Canal Street Bridge, Chicago River.....		5,124 00			5,124 00
Romeo Rd. Bridge, Main Channel, Sec. 12.....				\$ 1,656 72	1,656 72
	\$ -118 00	\$101,816 96	\$ 29 63	\$ 1,656 72	\$ 103,385 31

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.  
CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF MARCH, 1901.

CLASSIFICATION.	ENGINEERING EXPENSES			Construc- tion.	Capital- ization.	Bridgeport Pumps.
	Salaries.	Supplies, Etc.	Totals.			
Maps and Plans for General Use.....		\$ 12	\$ 12			
Chicago River Surveys.....		8 15	8 15			
Right of Way.....						
Hydraulic Measurements.....	\$ 130 75		130 75			
Mortar, Sand and Cement Tests.....	1,593 00	297 34	1,890 34			
Photographs of Works.....	243 75		243 75			
Chicago River, Docking, etc.....	16 75		16 75			
State Street Bridge, Chicago River.....	650 00	28 21	678 21	\$ 118 00		
Taylor Street Bridge, Chicago River.....	155 00		155 00			
C. T. R. Co.'s Bridge, Chicago River.....		38	38	4,827 86		
Eighteenth Street Bridge, Chicago River.....	673 75	114 25	787 00	92,065 10		
Canal Street Bridge, Chicago River.....	85 00		85 00			
Main Street Bridge, Chicago River.....	205 75	7 73	213 48	4,468 50		
Ashland Avenue Bridge, Chicago River.....	293 00	7 94	299 94			
Main Channel and River Diversion Excavation, etc.....	949 25	7 67	956 92			
Paulhandle Temporary Bridges, Main Channel, Section O.....	110 00	14 00	124 00			
Paulhandle Permanent Bridges, Main Channel, Section O.....	30 00	1 13	31 13	29 63		
Belt Ry. Co. of Chicago's Permanent Bridge, Main Channel, Section K.....	125 83	868 04	993 87			
C. T. R. Co.'s Permanent Bridge, Main Channel, Section E.....	40 00		40 00		\$30,461 40	
Bomeo Road Permanent Bridge, Main Channel, Section 12.....	141 00	1 22	142 22	1,656 72		
C. T. R. Co.'s Permanent Bridge, Desplaines River, Section E.....	192 50	107 66	300 16		5,655 00	
Disposal Works and Joliet Project.....	1,685 06	4,076 30	5,661 36			
Expert Commission.....						\$ 249 28
Bridgeport Pumping Works.....						
Totals.....	\$6,148 38	\$3,094 46	\$11,172 84	\$102,744 81	\$36,116 40	\$ 349 28

ORDER FOR THE PAYMENT OF SEMI-ANNUAL INTEREST DUE MAY 1, 1901, ON THE BALANCE OF FIRST ISSUE OF OUTSTANDING BONDS OF THE SANITARY DISTRICT.

Under the head of new business, Mr. Carter presented, and, seconded by Mr. Webb, moved the adoption of the following order:

*Ordered,* That the Clerk be, and he hereby is, instructed to draw a warrant payable to the order of the Treasurer for the sum of thirty thousand (\$30,000) dollars, to pay the semi-annual interest accruing May 1, 1901, on the balance of the first issue of bonds of the Sanitary District of Chicago outstanding, being one million two hundred thousand (\$1,200,000) dollars at five (5) per cent per annum; and that the Treasurer be, and he is hereby, authorized and

directed to pay said semi-annual interest upon the proper presentation and cancellation of the interest coupons evidencing the same, and such payment to be charged to its proper account.

The roll being called the order as presented was adopted:

*Yeas* — Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Cloldt, the Board adjourned.

*A. R. Porter..*  
CLERK

April 29,

—7170—

1901



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

MAY 1 AND 8, 1901.

OFFICIAL RECORD.

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

REGULAR MEETING.

The Five Hundred and Twenty-eighth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Wednesday, May 1, 1901, at 2 o'clock P. M.

In the absence of the President, the Vice President, Mr. Baker, took the chair, and the roll being called, there were then

*Present*—Messrs. Baker and Webb—two members.—No quorum.

*Absent*—Messrs. Braden, Carter, Cloldt, Jones, Legner, Smyth and Wenter—Seven members.

No other members having arrived at 2 o'clock P. M., and there being no quorum present, on motion of Mr. Webb, the Board adjourned.

*A. R. Porter.*  
CLERK

REGULAR MEETING.

The Five Hundred and Twenty-ninth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago, was held in the Rooms of the Board, Security Building, Wednesday, May 8, 1901, at 2 o'clock, P. M.

The President, Mr. Jones, took the chair, and the meeting being called to order, there were then

*Present*—Messrs. Carter, Cloldt, Jones, Legner and Smyth—Five members.

*Absent*—Messrs. Baker, Braden, Webb and Wenter—Four members.

Mr. Wenter arriving subsequently.

MINUTES.

On motion of Mr. Smyth, seconded by Mr. Legner, the minutes of the meeting, held April 27, 1901, and of the adjourned meeting held August 29, 1901, were approved as printed.

## VOUCHERS.

The Clerk presented the following vouchers:

## CONSTRUCTION ACCOUNT.

Heldmaier & Neu (Section 17, May 1, 1901) .....	\$ 4,742 50
Lydon & Drews Company (Canal Street Bridge, May 1, 1901) .....	1,641 50
Lydon & Drews Company (Main Street Bridge, May 1, 1901) .....	700 00
Lydon & Drews Company (Chicago River Improvement, May 1, 1901) .....	1,121 25
Page & Shnable (Ashland Avenue Bridge, May 1, 1901) .....	1,899 68
	<u>\$ 10,104 88</u>

## ENGINEERING DEPARTMENT.

Frederick Post Company (blue prints) .....	\$ 2 37
R. Seelig (drafting supplies) .....	53 14
W. T. Keating (expenses) .....	10 20
W. T. Keating (high water marks, Illinois Valley) .....	130 23
W. T. Keating (expenses Expert Commission) .....	10 52
Hibbard, Spencer, Bartlett Company (office furnishings) .....	2 52
W. G. Derbyshire (bridge inspection) .....	100 00
Hans Isak (gauge reading) .....	10 00
Hiero B. Herr (salary as Secretary Expert Commission) .....	500 00
H. F. Lawrence (data for Expert Commission) .....	10 00
Chicago Electric Maintenance Company (electric supplies) .....	3 75
Burke & James (photo supplies) .....	149 54
Jessie S. Holmes (typewriting) .....	4 55
Murray J. Brady (typewriting, Expert Commission) .....	94 63
American Water Company (water) .....	13 50
Keuffel & Esser Company (blue prints) .....	40 16
S. J. Stebbins Company (hardware) .....	87 26
Eugene Dietzgen Company (blue prints) .....	119 20
James A. Seddon (services to May 5, 1901, final) .....	300 00
	<u>\$ 1,641 57</u>

## CLERICAL DEPARTMENT.

Cameron, Amberg & Co. (stationery) .....	58 50
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## LAW DEPARTMENT.

John W. Nadelhoffer (expense) .....	\$ 36 15
E. R. Polk (witness fees) .....	25 00
The Gunthorp-Warren Printing Company (printing) .....	22 75
The Gunthorp-Warren Printing Company (printing) .....	51 50
	<u>\$ 135 40</u>

## POLICE DEPARTMENT.

Otis P. Graves (coal) .....	9 00
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## GENERAL ACCOUNT

Youghiogheny and Lehigh Coal Company (coal, Steamer Juliet) .....	\$ 14 72
A. R. Porter, Clerk (expense) .....	356 63
W. P. Winslow (packing, Steamer Juliet) .....	4 59
H. Lewis & Co. (oil, Steamer Juliet) .....	2 75
Security Building Receivership (rent offices, May, 1901) .....	458 33
John H. Batterman (envelopes) .....	14 23
Chicago Arbeiter-Zeitung Publishing Company (advertising) .....	15 50
Hearst's Chicago American (advertising) .....	48 30
Illinois Staats Zeitung Company (advertising) .....	1 88
Chicago Telephone Company (service January 1 to April 1, 1901) .....	1,177 19
N. B. Wiggins .....	334 00
Robert E. Hills (repairing machinery, Steamer Juliet) .....	100 21
W. T. Keating (expenses) .....	2 40
	<u>\$ 2,530 53</u>

## MAINTENANCE ACCOUNT.

Chicago Engineer Supply Company (packing).....	\$ 3 00	
Heldmaier & Neu (replacing floating boom, Section 17).....	162 55	
City of Chicago (repairs Bridgeport pumps).....	29 51	
W. T. Keating (expense).....	1 10	
W. T. Keating (expense).....	3 35	
Jenkins Bros. (globe stems).....	3 36	
James B. Clows & Sons (supplies, Bridgeport Pumping Works).....	20 41	
William O'Connell (supplies, Controlling Works).....	5 50	
John Spry Lumber Company (lumber, Bridgeport Pumping Works)...	23 22	
Pay roll (Supplemental Bridgeport Pumping Works, April, 1901).....	409 84	
	<u>\$</u>	661 84
Grand total. ....	<u>\$</u>	<u>15,141 72</u>

Mr. Carter, seconded by Mr. Cloldt, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Carter, Cloldt, Jones, Legner, Smyth and Wenter—Six.

*Nays*—None.

## SALARY VOUCHER OF W. M. CHRISTIE ORDERED PAID.

Mr. Wenter, seconded by Mr. Carter, moved that the voucher of W. M. Christie, being for salary as photographer of the District, for the month of March, amounting to \$150.00, be ordered paid.

The roll being called, the motion was adopted.

*Yeas*—Messrs. Carter, Jones, Legner, Smyth and Wenter—Five.

*Nays*—None.

Excused and not voting—Mr. Cloldt—One.

## MESSAGE FROM PRESIDENT JONES RECOMMENDING THE TERMINATION OF THE WORK OF THE COMMISSION OF EXPERTS APPOINTED JANUARY 9, 1901.

President Jones presented a message to the Board, recommending the termination of the deliberations of the Commission of Experts appointed on January 9, 1901, to consider what improvements or changes in plans should be made by the Sanitary District for the improvement of the Chicago River to allow the legal flow of water with the least possible interference with navigation; and further recommending that the

Commission be requested to present to the Board the data which it has collected, to the end that it may be preserved for use at some future time.

The following is the message:

CHICAGO, May 7, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In view of the recent action of the General Assembly conferring additional powers upon the Sanitary District in the matter of the improvement of the Chicago River, and providing for an additional increase in bonds to the amount of five million dollars, at such time as the valuation of the Sanitary District may permit, I beg leave to suggest the desirability of terminating, at this time, the deliberations of the Commission of Experts appointed January 9, 1901, by your Honorable Body to consider the plans heretofore adopted by the Board of Trustees for furnishing the legal volume of water required to comply with present conditions, and to meet the future necessities as the population of the Sanitary District may increase.

As is fully shown by the considerations of your Honorable Body, the principle object for calling in conference the leading citizens of the Sanitary District, and subsequently appointing a Committee of Experts to pass upon the adequacy of our plans, was for the purpose of convincing the public, by a full and adequate discussion, of the urgent necessity of additional legislation in order to comply with the legal requirements of the Sanitary District without unreasonably obstructing the navigation of the Chicago River. In the action

of your Honorable Body naming the Commission of Experts, it was provided that their labor should cease and a report be submitted to the Board of Trustees not later than March 1, 1901, in order that their conclusions might be of utility in discussing Sanitary District problems before the General Assembly at Springfield. As the work of the Commission proceeded, however, its members found that the problem was of such vast importance and its details so multitudinous that it was practically impossible to report on the date originally provided. With the tacit consent of the Trustees, therefore, the Commission proceeded with its work and procured, and now has at hand, a large amount of data of most valuable nature in the consideration of the future needs of the District. After it became obvious that no report of the Commission could be had in time for consideration in the General Assembly, the Honorable O. N. Carter, Chairman of the Special Commission, submitted to the General Assembly at Springfield certain bills calling for the legislative relief deemed absolutely imperative in order to enable the District to continue the work and comply with the requirements of the organic act under which the Sanitary District is organized.

It affords me pleasure to congratulate your Honorable Body on the favor with which these measures were received by the General Assembly at Springfield, and which resulted in the enactment of a law affirming the right of the District to improve navigable streams by widening, deepening and the construction of bridges, and permitting an increased bonded indebtedness from fifteen million to twenty million dollars whenever the property valuations of the District may permit.

The latest developments in the injunction proceedings of the State of Missouri and the City of St. Louis against the State of Illinois and the Sanitary District, make it imperative that our earnest and most immediate efforts should be directed to carrying out plans of the Sanitary District for Chicago River improvement adopted a year ago.

The data collected by the Commission of Experts is of great value to the Sanitary District, and will be of increasing value as our growing population requires additional

improvements in the future in order to comply with the law of the State of Illinois. It is evident from the figures submitted that the plans of the District for river improvement are the best to be followed under all the circumstances and with due regard for present financial resources; but the future problems of disposing of sewage of contiguous territories, whose area must eventually become a part of the Sanitary District, is treated in a most comprehensive and exhaustive manner by the Commission of Experts. I, therefore, recommend that the Commission be requested to present to your Honorable Body the voluminous and valuable data which it has collected, to the end that it may be carefully preserved.

Respectfully submitted,  
(Signed.) ALEX. J. JONES,  
President.

Mr. Smyth, seconded by Mr. Cloldt, moved that the recommendations contained in the message of the President be concurred in.

The roll being called, the motion was adopted by the following vote:

*Yeas*—Messrs. Carter, Cloldt, Jones, Legner, Smyth and Wenter—Six.

*Nays*—None.

#### CLERK'S REPORT ON EMPLOYEES.

The Clerk presented the following report, showing the number of persons employed by the District for the month ending April 30, 1901, which, by unanimous consent, was ordered printed and placed on file:

CHICAGO, May 4, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the month ending April 30, 1901, as the same has been reported to me:

Engineering Department.....	39
Clerical Department. ....	5
Law Department.....	8
Treasury Department.....	1
Police Department.....	17

General.....	4
Maintenance.....	26
Total employees.....	100

Respectfully submitted,

A. R. PORTER,  
Clerk.

# MONTHLY REPORT OF THE CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department, being for the months of February and March, 1901, which, by unanimous consent, was ordered printed and placed on file.

CHICAGO, May 8, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith submit the report of the Clerical Department for the months of February and March, 1901.

The total expenditures of the District for the months of February and March, 1901,

was \$34,958.68, and \$207,892.14, respectively, aggregating \$244,850.77, of which amount the sum of \$245,696.50 was paid in regular warrants, and the sum of \$654.27 by the Treasurer of the District, for which no warrant was required. Of the amount paid by the Treasurer, the sum of \$628.85 was for 1899 tax warrants redeemed, and \$25.92 for interest on same.

The total amount expended on account of, and charged to, the Clerical Department was \$1,900.86, of which amount the sum of \$1,866.66 was for salaries and the sum of \$34.70 for general office expenses.

The total amount expended for account of, and charged to, the General Account was \$8,700.89, divided as follows:

Rent, February and March, 1901.	\$	916 66
Printing.....		865 27
Advertising.....		47 70
Salaries.....		5,806 66
Telephone line.....		1,416 97
General expenses.....		127 12
Total.....	\$	8,700 89

Of the total Tax Levy Warrants heretofore issued, the following amounts were still outstanding April 1, 1901:

Against the Tax Levy of 1896.....	\$	10,968 89
Against the Tax Levy of 1899.....		80,390 88
Against the Tax Levy of 1900.....		879,269 17
Total.....	\$	420,508 44

The following is a tabulated statement of total expenditures for the month of February, 1901:

Account.	Regular Warrants.	Paid by Treasurer.	Total for Month.
Engineering Department.....	\$ 9,233 69	.....	\$ 9,233 69
Construction.....	12,484 81	.....	12,484 81
Clerical Department.....	959 88	.....	959 88
Law Department.....	6,353 86	.....	6,353 86
Treasury Department.....	875 00	.....	875 00
General.....	3,980 28	.....	3,980 28
Police Department.....	1,777 47	.....	1,777 47
Maintenance.....	1,248 42	.....	1,248 42
1899 Tax Warrants redeemed.....	.....	\$ 628 85	628 85
Interest on Tax Warrants redeemed.....	.....	25 92	25 92
Totals.....	\$ 36,804 86	\$ 654 27	\$ 36,958 63

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The following is a tabulated statement of total expenditures for the month of March, 1901:

Account.	Regular Warrants.	Total for Month.
Engineering Department.....	\$ 9,608 60	\$ 9,608 60
Construction.....	187,840 26	187,840 26
Clerical Department.....	948 08	948 08
Law Department.....	4,151 06	4,151 06
Land Account.....	20,875 23	20,875 23
Treasury Department.....	875 00	875 00
General.....	4,770 11	4,770 11
Police Department.....	1,697 45	1,697 45
Maintenance.....	1,010 00	1,010 00
Capitalization and Maintenance of Bridges.....	26,116 40	26,116 40
Totals.....	\$207,892 14	\$ 207,892 14

Respectfully submitted,

(Signed)

A. R. PORTER, *Clerk.*"

## MONTHLY REPORT OF THE TREASURY DEPARTMENT.

The Clerk presented a report of the Treasury Department for the month ending April 30, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

## SANITARY DISTRICT OF CHICAGO.

*Treasurer's Report for April, 1901.*

*Receipts.*

Balance on hand at date of last report.....	\$ 1,676,338 38
From Collector Town of Lake View, Sanitary District Tax Account.....	\$ 22,215 01
From Collector Town of Jefferson, Sanitary District Tax Account.....	5,359 73
From Collector Town of Lyons, Sanitary District Tax Account.....	1,827 28
From Collector Town of Hyde Park Sanitary District Tax Account.....	28,253 68
From Collector South Town, Sanitary District Tax Account.....	225,336 35
From Collector West Town, Sanitary District Tax Account.....	59,233 54
From Collector North Town, Sanitary District Tax Account.....	18,063 22
From Chicago National Bank, Interest Account.....	1,611 14
From Equitable Trust Company, Interest Account.....	410 99
From Home Savings Bank, Interest Account.....	328 76
From Illinois Trust and Savings Bank, Interest Account.....	239 01
Total cash received for month.....	\$ 362,867 71
	<u>\$ 2,039,206 09</u>

*Disbursements.*

Clerical Department.....	\$ 12 83
Engineering Department.....	5,051 83
Construction Account.....	105,010 73
Law Department.....	820 76
General Account.....	3,232 22

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Police Department.....	\$	14 00	
Maintenance Account.....		520 99	
Bond Interest and Premium Account.....		47,500 00	
Tax Warrants Paid—Levy 1899.....	\$	28,072 24	
Tax Warrants Paid—Levy 1900.....		321,274 57	
			349,346 81
Interest Paid on Tax Warrants—Levy 1899.....	\$	1,070 71	
Interest Paid on Tax Warrants—Levy 1900.....		21,916 57	
			22,987 28
Total cash disbursed.....	\$	584,497 45	
Balance this date in banks, as per schedule endorsed hereon.....		1,504,708 64	
			\$ 2,088,206 09

*Schedule.*

Chicago National Bank.....	\$	1,028,530 85
Equitable Trust Company.....		250,000 00
Home Savings Bank.....		200,000 00
Illinois Trust and Savings Bank.....		289 01
National Bank of Illinois.....		25,988 78
Total.....	\$	1,504,708 64

CHICAGO, May 6, 1901.

F. M. BLOUNT, *Treasurer.*By S. P. BLOUNT, *Assistant Treasurer.*

**REPORT IN REFERENCE TO REDUCTION OF BONDS OF THE TOLEDO BRIDGE COMPANY AND THE CHICAGO BRIDGE AND IRON COMPANY AND THE RELEASE OF SURETY ON THE BOND OF THE KING BRIDGE COMPANY.**

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee, together with the joint report of the Chief Engineer and Attorney of the District, with reference to the request of the City Trust, Safe Deposit and Surety Company of Philadelphia for the release of said company as surety on the bonds of the Chicago Bridge and Iron Company, The Toledo Bridge Company, The King Bridge Company, and Heldmaier & Neu; the report of the Committee recommending that the bond of The Toledo Bridge Company for the construction of the sub and superstructure of the Belt Railway Bridge, on Section "K," be reduced from \$30,000.00 to \$2,000.00, and that the bond of the Chicago Bridge and Iron Company for the construction of the sub and superstructure, auxiliary work and materials for the Van Buren Street approach span, be reduced from \$5,000.00 to \$2,000.00; and that the indemnifying bond of the King Bridge Company, on account of contract for the sub and superstructure of the Kedzie Avenue

bridge, in the sum of \$2,000.00 be released and cancelled.

In the matter of the request for the release of the surety on the bond of Heldmaier & Neu, in the sum of \$40,000.00, for the construction of Section "17," the Committee recommending that it be not granted, as the work under said contract has not been completed.

The following is the report of the Committee:

CHICAGO, May 8, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance herewith presents a joint report from the Chief Engineer and Attorney of the District touching the request of the City Trust, Safe Deposit and Surety Company of Philadelphia, for the release of certain bonds mentioned in said communication. Requests are made on behalf of Heldmaier & Neu, on account of construction of Section 17, the amount of said bond being in the sum of \$40,000.

On behalf of the Toledo Bridge Company for the construction of the sub and superstructure of the Belt Railway Bridge on Section "K," said bond being in the sum of \$30,000.

On behalf of the Chicago Bridge and Iron Company for the construction of the sub and superstructure, auxiliary work and materials for the Van Buren Street approach span, said bond being in the sum of \$5,000.

On behalf of the King Bridge Company, on account of contract for superstructure of the Kedzie Avenue Bridge, said bond being an indemnifying bond in the sum of \$2,000.

It appears from the communication that no claims have been filed as to any of said contracts in which the District is in any wise interested. That final certificates have in each case been awarded to the contractors, except in the case of Heldmaier & Neu, the work under said contract not being completed. Inasmuch as it is customary to hold for a reasonable time a bond of sufficient penalty to indemnify the District against possible claims for damages against a contractor whose work has just been completed, the Committee recommends as follows:

That the bond of Heldmaier & Neu for the construction of Section 17 be not released, for the reason given above.

That the surety on the indemnifying bond of the King Bridge Company be released and bond cancelled.

That the bond given by the Toledo Bridge Company, in the sum of \$30,000, for the construction of the sub and superstructure of the Belt Railway Bridge on Section "K," and the bond given by the Chicago Bridge and Iron Company for the construction of the sub and superstructure, auxiliary work and materials for the Van Buren Street approach span be reduced to the sum of \$2,000, and that new bonds for that amount be taken in each case in lieu of the old bonds when the same shall be presented to the Finance Committee with a surety thereon acceptable to said Committee.

Respectfully submitted,

(Signed)

Z R. CARTER,

*Chairman.*

FRANK X. CLOIDT

THOMAS A. SMYTH,

WM. LEGNER.

ALEX. J. JONES,

*Committee on Finance.*

The following is the joint report of the Chief Engineer and Attorney of the District to the Finance Committee:

CHICAGO, April 27, 1901.

*To the Committee on Finance:*

GENTLEMEN—The communication from the City Trust, Safe Deposit and Surety Company of Philadelphia, dated April 12th and signed by Joseph T. Bowen, manager, asking for the release of certain bonds has been referred to me, and I have to report as follows:

Bond No. 17046 C, on behalf of Heldmaier & Neu on account of construction of Section 17, amount \$40,000, should not be released, as the work is not finished.

Bond No. 18756 C, given on behalf of the Toledo Bridge Company for the construction of the sub and superstructure of the Belt Railway Bridge on Section "K," should be reduced from \$30,000 to \$2,000.

Bond No. 18044 C, given on behalf of the Chicago Bridge and Iron Company for \$5,000 on account of the Van Buren Street Approach Span, should be reduced to \$2,000.

Bond No. 20985 C, given on behalf of the King Bridge Company in the sum of \$2,000 on account of the Kedzie Avenue Bridge, should be released.

I return herewith the communication.

Respectfully submitted,

ISHAM RANDOLPH,

*Chief Engineer.*

I concur in the report of the Chief Engineer.

JAMES TODD,

*Attorney.*

(One enclosure).

On motion of Mr. Carter, seconded by Mr. Smyth, the report was adopted and the recommendations contained therein concurred in.

Yeas — Messrs. Carter, Cloidt, Jones, Legner, Smyth and Wenter—Six.

Nays—None.

REPORT RECOMMENDING RESCISSION OF FORMER ACTION TO PAY TAXES ON REAL ESTATE IN WILL COUNTY, ILLINOIS.

Mr. Carter, Chairman, presented a report from the Committee on Finance recom-



mending that the action taken by the Board at the meeting held February 6, 1901 (page 6985 of the Proceedings), in reference to the payment of taxes on real estate in Will County, Illinois, be rescinded; the report setting forth that certain pieces of land were omitted from the bill submitted by the County Clerk of Will County, and that the Committee found the bill, as now presented, to be correct, and recommending that a voucher be drawn in favor of W. W. Gifford, County Treasurer of Will County, Illinois, in the sum of \$2,569.82, being the amount due as taxes for the year 1900, on real estate owned by the District in Will County, Illinois.

The following is the report of the Committee:

CHICAGO, May 8, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance herewith presents a report of John W. Nadelhofer of the real estate owned by the District in Will County, Illinois. This report contains several pieces of land which were omitted from the bill submitted by the County Clerk of Will County, and on which action was taken at the meeting held February 6, 1901 (page 6985 of the Proceedings).

Your Committee advises that the action of the Board, of above date, be rescinded, and the Committee having carefully examined the said report and the bills attached thereto, recommends that a voucher be drawn in favor of W. W. Gifford, County Treasurer of Will County, Illinois, in the sum of twenty-five hundred sixty-nine and eighty-two one hundredths (\$2,569.82) dollars, in full payment of the amount due as taxes for the year 1900, on the real estate owned by the District in said County.

Respectfully submitted,

(Signed)

Z. R. CARTER,

*Chairman.*

FRANK X. CLOIDT,

THOMAS A. SMYTH,

ALEX J. JONES.

WM. LEGNER,

*Committee on Finance.*

(Five enclosures.)

On motion of Mr. Carter, seconded by Mr. Legner, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Carter, Cloldt, Jones, Legner, Smyth and Wenter—Six.

*Nays*—None.

ORDER DIRECTING THE CHIEF ENGINEER OF THE DISTRICT TO CONSULT WITH THE GOVERNMENT ENGINEER STATIONED AT CHICAGO WITH A VIEW OF PROCEEDING TO DREDGE, WIDEN AND REMOVE OBSTRUCTIONS IN THE CHICAGO RIVER.

Mr. Smyth, seconded by Mr. Cloldt, moved the adoption of the following order:

"That in furtherance of former orders, ordinances and plans of this Board adopted and pursued, and for the purpose of obtaining desired results at the earliest possible time:

"It is ordered, That the Chief Engineer of the Sanitary District shall consult with the Government Engineer stationed at Chicago, examine the condition of the Chicago River, and after said examination and consultation with said Government Engineer, ascertain and determine what points in and along the South Branch of the said Chicago River may be advantageously deepened and modified and obstructions removed therefrom, so as to permit a discharge of not less than three hundred thousand cubic feet of water per minute, and which will not create a current exceeding one and one-quarter miles per hour, and that after having so ascertained and determined such point or points along the South Branch of said Chicago River, that the Chief Engineer forthwith proceed to cause such dredging, widening and removal of obstructions as may be necessary in order to pass not less than three hundred thousand cubic feet of water per minute at such point or points, with a current not exceeding one and one quarter miles per hour, to the end that the Sanitary District may comply with the laws of the United States, the State of Illinois and the regulations of the Secretary of War, in supplying the amount of water in its Channel required by law."

The roll being called, the order as presented was adopted.

May 8,]

—7180—

[1901

*Yeas*—Messrs. Carter, Cloldt, Jones, Leg-  
ner and Smyth—Five.

*Nays*—None.

Excused and not voting—Mr. Wenter—  
One.

ADJOURNMENT.

On motion of Mr. Smyth, seconded by  
Mr. Cloldt, the Board adjourned.

*A. R. Porter.*  
CLERK

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

MAY 15, 1901.

OFFICIAL RECORD.

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

REGULAR MEETING.

The Five Hundred and Thirtieth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Wednesday, May 15, 1901, at 2 o'clock P. M.

The President, Mr. Jones, took the chair, and the meeting being called to order, there were then

*Present*—Messrs. Baker, Carter, Cloldt, Jones, Legner, Smyth, and Wenter—Seven.

*Absent*—Messrs. Braden and Webb—Two  
Messrs. Braden and Webb arriving subsequently.

MINUTES.

On motion of Mr. Cloldt, seconded by Mr. Carter, the minutes of the regular meetings held May 1st and 8th, 1901, were approved as printed.

VOUCHERS.

The Clerk presented the following vouchers:

CONSTRUCTION ACCOUNT.

M. H. McGovern & Co. (grading road bed, Section "K").....

\$ 2,074 91

May 15,]

.. 7182 -

|1901

## MAINTENANCE ACCOUNT.

W. J. Freckelton (coal, Bridgeport Pumps).....	\$	957 49
--	----	--------

## ENGINEERING DEPARTMENT.

Chas. G. Sachse (stenographer, Expert Commission).....	\$	270 00
William Trinkaus (expense) .....		31 07
	—————\$	301 07

## CLERICAL DEPARTMENT.

A. P. Little Company (typewriter supplies).....		4 50
---	--	------

## LAW DEPARTMENT.

James Todd, Attorney (expense).....	\$	139 26
Samuel L. Hanks (ice).....		7 50
W. M. Hughes (witness fees).....		60 00
C. Harrigan (typewriter supplies).....		6 40
Wyckoff, Seamans & Benedict (repairs).....		14 65
Kelly-Atkinson Construction Company (court expense).....		38 13
	—————\$	265 94

## POLICE DEPARTMENT.

Bridget Lambert (laundry).....		13 00
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## GENERAL ACCOUNT.

H. Lewis & Co. (oils, Steamer Juliet).....	\$	10 50
Construction News Company (advertising).....		20 25
Chicago Chronicle Company (advertising).....		5 60
Chicago Chronicle Company (advertising).....		2 00
Tribune Company (advertising).....		3 30
Freie Presse (advertising).....		20 63
Inter-Ocean Publishing Company (advertising).....		4 20
Chicago Record-Herald (advertising).....		3 00
John F. Higgins (printing) .....		92 70
E. C. Cook & Bro. (awning, Steamer Juliet).....		8 60
White Bros. & Thuner (carpet cleaning, Steamer Juliet) .....		4 20
Elite Laundry Company (laundry, Juliet).. ..		7 78
A. R. Porter (expense).....		1,482 56
Ross C. Hall.....		1,050 00
		<u>2,715 32</u>
Grand total.....	\$	<u>6,331 23</u>

Mr. Carter, seconded by Mr. Baker, moved that the vouchers as read and shown above be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

REPORT IN REFERENCE TO JUDGMENT RENDERED IN THE UNITED STATES CIRCUIT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS IN THE CASE OF THE CARNEGIE STEEL COMPANY, LIMITED, VS. THE SANITARY DISTRICT OF CHICAGO.

Mr. Legner, Chairman of the Committee on Judiciary, presented a report with ref-

erence to the verdict rendered in the case of the Carnegie Steel Company Ltd. vs. The Sanitary District of Chicago for the recovery of the balance due on the contract of said company for the construction of the Atchison, Topeka and Santa Fe Railway Company's Bridge across the Main Channel on Section '8'; the Committee reporting that judgment has been rendered by the court against the District in the sum of \$25,368.40, and costs amounting to \$58.76; and recommending that the President and Clerk of the District be authorized and directed to pay, on the voucher of the Chief Engineer, to the said Carnegie Steel Company, Limited, the sum of \$25,427.16, being the full amount of the judgment and costs in said case.

The following is the report of the Committee:

CHICAGO, May 15, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Judiciary herewith reports that a verdict has been rendered in the case of the Carnegie Steel Company Limited vs. Sanitary District of Chicago, lately pending in the United States Circuit Court for the Northern District of Illinois, for the recovery of the balance due on the contract for the construction of the super-structure of the Atchison, Topeka and Santa Fe Railway Company's bridge across the Main Drainage Channel on contract Section "8"; said balance as claimed being in the sum of thirty thousand seven hundred and sixty-eight and forty one hundredths (\$30,768.40) dollars.

The jury in said case found for the plaintiff and assessed its damages at twenty-five thousand three hundred and sixty-eight and forty one hundredths (\$25,368.40) dollars, for which sum judgment was rendered by the Court together with the costs, which amounted to fifty-eight and seventy-six one hundredths (\$58.76) dollars.

Your Committee, therefore, recommends that the President and Clerk of the District be, and they are hereby authorized and directed to pay on the voucher of the Chief Engineer, to the said Carnegie Steel Company Limited, the sum of twenty-five thousand four hundred and twenty-seven and sixteen one hundredths (\$25,427.16) dol-

lars, being the full amount of judgment and costs in said case upon the said Carnegie Steel Company Limited, satisfying said judgment and costs in full.

Respectfully submitted,

(Signed)

WM. LEGNER,

*Chairman.*

FRANK WENTER,

WM H. BAKER,

Z. R. CARTER,

FRANK X. CLOIDT,

ALEX. J. JONES,

THOMAS A. SMYTH,

*Committee on Judiciary.*

On motion of Mr. Legner, seconded by Mr. Cloidt, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

REPORT SUBMITTING FORMS OF LEASES TO BE ENTERED INTO WITH THE LUFKIN STOCK YARDS AND FEEDING COMPANY AND THE PEOPLES' TELEPHONE COMPANY.

Mr. Braden, Chairman of the Committee on Engineering, presented a report of the Committee transmitting forms of leases to be entered into with the Lufkin Stock Yards and Feeding Company, being for a strip of land in the northeast quarter of Section 4, Township 38, for the term of one year, and at an annual rental of \$2.00 per lineal foot of water front; the lease of the Peoples' Telephone Company is for the privilege of placing cross arms on the Lockport Road Bridge for the purpose of carrying its wires across the Main Channel. The consideration for the privilege granted under the lease is to be the free service to the District of any of said lines now in use, or to be used hereafter, and also that the company is to erect a line of poles running from the east end of said bridge on the road to the Controlling Works connecting with the telephone service at that point. The report further recommending that the President and Clerk be directed to execute said lease in the form as submitted by the Committee.

On motion of Mr. Braden, seconded by Mr. Baker, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

The following is the report of the Committee:

CHICAGO, May 15, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering, to which was referred the communication of Lufkin Stock Yards and Feeding Company, containing a proposition for a lease of dockage lands belonging to the District, and the communication from the Peoples' Telephone Company, for the privilege of placing cross arms on the Lockport Road Bridge, herewith presents forms of leases to be executed by the District with the above mentioned parties.

The lease with the Lufkin Stock Yards and Feeding Company is for the term of one year, at an annual rental of two (\$2.00) dollars per lineal or running foot, of water front, and with the Peoples' Telephone Company for a term to be concluded at the will of either party upon giving ten days notice in writing; said leases are in conformity with the form ordered by the Board of Trustees for use in cases as above.

Your Committee, therefore, recommends that the President and Clerk be authorized and directed to execute said leases on behalf of the District to the parties as above set forth when the said parties shall have executed the same and complied with the terms and conditions thereof which may be deemed necessary as conditions precedent to the execution of said lease.

Respectfully submitted,

(Signed) JOS. C. BRADEN,  
Chairman.

WM. H. BAKER,  
THOMAS J. WEBB,  
Z. R. CARTER,  
T. A. SMYTH,  
WM. LEGNER,  
FRANK X. CLOIDT,  
FRANK WENTER,  
ALEX. J. JONES,

*Committee on Engineering.*

(Two enclosures.)

The following is the form of lease to be entered into with the Lufkin Stock Yards & Feeding Company:

**THIS INDENTURE**, Made this first day of May, A. D. 1901, between the Sanitary District of Chicago, party of the first part, and Lufkin Stock Yards & Feeding Co., a corporation organized and existing under the laws of the State of Illinois, party of the second part.

**WITNESSETH**, That said party of the first part for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, its successors and assigns, has demised and leased to the said party of the second part all those premises situate, lying and being in the County of Cook and State of Illinois, known and described as follows, to-wit:

A strip of land in the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section four (4), Township thirty-eight (38) North, Range thirteen (13) East of Third Principal Meridian, bounded and described as follows:

Beginning at the point of intersection of the northerly bank of the Main Drainage Channel with the West line of 48th street, running thence southwesterly along said northerly bank of said Main Drainage Channel for a distance of two hundred (200) feet, running thence north on a line parallel to said West line of said 48th street to the northerly line of the right of way of the Sanitary District of Chicago, running thence northeasterly along said northerly line of the right of way of the Sanitary District of Chicago to said West line of 48th street, running thence south along said West line of 48th street to the point of beginning.

To have and to hold the above described premises unto the said party of the second part, its successors and assigns from the first day of May in the year of our Lord, One Thousand Nine Hundred and One, for and during and until the 30th day of April in the year of our Lord, One Thousand Nine Hundred and Two.

And the said party of the second part in consideration of the leasing of the premises aforesaid by the said party of the first part to the said party of the second part, does covenant and agree with the said party of the first part, its successors and assigns, to pay to the said party of the first part as rent for the said demised premises at the office of said first party, in the City of Chicago, the sum of two (\$2.00) dollars per lineal or running foot of water front per annum, payable in equal monthly installments in advance.

It is further agreed, that the said party of the second part be allowed to cut through the spoil bank for the purpose of making an opening two hundred (200) feet wide on said bank, the material taken therefrom to be removed by said second party from the lands of the said first party, the work of making said opening and the removal of the material taken therefrom to be done under the direction of the Chief Engin.

cer of the said first party. The compensation for cutting said bank to be one-half of the year's rent for said premises, to be allowed on this lease.

It is further agreed that said party of the second part shall be allowed to erect the necessary wharfage, the plans for same to be subject to the approval of the Chief Engineer of the said first party.

It is expressly covenanted and agreed by the said party of the second part, its successors and assigns, that it will use said above described premises for dockage and shipping purposes only; and that it will not use said premises, or suffer them to be used, for the sale of wines, ales, liquors, or any other intoxicating beverages whatsoever, or for the purpose of gambling in any manner whatsoever.

It is further expressly covenanted and agreed, however, by and between the parties aforesaid, that the said party of the first part, its successors or assigns, reserves to itself the right at any time, at its election, to declare said lease terminated, and either with or without process of law, and using such force as may be necessary in so doing to re-enter said demised premises, and again re-possess and enjoy said premises as in their first and former state. Said party of the first part hereby covenants and agrees in case it does terminate this lease as above provided, and for no cause given by said party of the second part to pay to said party of the second part such sum of money as shall be appraised as damages caused by such termination of this lease, said damages to be appraised by a board of three (3) arbitrators, one to be appointed by the party of the first part, and one by the party of the second part, and said two so appointed to choose a third one. The award of said Board of Arbitrators to be final and binding upon both parties to this lease.

It is further covenanted and agreed by the said party of the second part that it will pay, or cause to be paid, all water rates and all taxes and assessments that may be laid, charged or assessed on said premises, pending the existence of this lease, or if at any time after any tax, assessment or water rate shall have become due or payable, the party of the second part, or its legal representatives shall neglect to pay such water rates, tax or assessment, it may be lawful for the party of the first part to pay the same at any time thereafter, and the amount of any and all such payments so made by the party of the first part shall be deemed and taken and are hereby declared to be so much additional and further rent for the above demised premises due from and payable by the party of the second part; and may be collected in the same manner by distress or otherwise, as is hereinafter provided for the collection of other rents to grow due thereon.

And it is expressly understood and agreed by the party of the second part hereto, or its successors and assigns, that the whole amount of

rent reserved and agreed to be paid for said above described premises, and each and every installment thereof, shall be and is hereby declared to be a valid and first lien upon any and all buildings and improvements upon said premises, or that may at any time be erected, placed or put on said premises by said party of the second part, its successors or assigns, and upon its or their interests in this lease and the premises hereby demised; and that whenever and as often as any installment of rent or any other amount above declared to be deemed and taken as rent shall become due and remain due and unpaid for one day after the same becomes due and payable, said party of the first part, its successors, agents, attorneys, or assigns, may sell at public auction, to the highest bidder for cash, after having first given ten days notice of the time and place of such sale in some newspaper published in Cook County, all the buildings and improvements on said premises, and all the right, title and interest acquired by said party of the second part under this lease to the premises herein described, and as the attorney of the said party of the second part, hereby irrevocably constituted, may make to the purchaser or purchasers thereof a suitable and proper transfer, bill of sale, or deed of the same, and out of the proceeds arising from such sale, after first paying all costs and expenses of such sale, including commissions and attorneys fees, retain to itself the whole amount due on said lease up to the date of said sale, rendering the surplus, if any, to said party of the second part, its successors, attorneys or agents, which sale shall be a perpetual bar to and against all rights and equities of said party of the second part, its successors or assigns, in and to the property sold.

And the party of the second part further covenants with the party of the first part that it will keep said demised premises in a clean and wholesome condition, in accordance with the ordinances and regulations of Cook County and directions of the health officers, and that at the expiration of the time in this lease mentioned it will yield up said premises to the party of the first part in as good condition as when the same were entered upon by the party of the second part, loss by fire or inevitable accident and ordinary wear excepted.

It is further agreed by the party of the second part that neither it nor its legal representatives will underlet said premises, or any part thereof, or assign this lease without the written assent of said party of the first part had and obtained thereto, nor use, or suffer them to be used, for any other purpose than that above mentioned.

It is expressly understood and agreed by and between the parties aforesaid that if the rent above reserved, or any part thereof, shall be behind or unpaid on the day of payment whereon it ought to be paid, as aforesaid, or if default shall be made in any of the covenants herein contained to be kept by the party of the second part,

its successors or assigns, it shall or may be lawful for the party of the first part, or its successors, agents, attorneys or assigns, at its election, to declare said term ended, and into the said demise premises, or any part thereof, either with or without process of law, to re-enter, and the party of the second part, or any other person or persons, occupying, in or upon the same, to expel, remove and put out, using such force as may be necessary in so doing, and the said premises to again repossess and enjoy as in their first and former state, and to distrain for any rent that may be due thereon upon any property belonging to the party of the second part, whether the same be exempt from execution and distress by law or not; and the party of the second part in that case hereby waives all legal rights which it has or may have, to hold or retain any such property under any exemption laws now in force in this state, or in any other way, meaning and intending hereby to give the party of the first part, its successors, officers, agents, attorneys or assigns, a valid and first lien upon any and all the goods, chattels, or other property belonging to the party of the second part as security for the payment of said rent, in manner aforesaid, anything hereinbefore contained to the contrary notwithstanding. And if at any time said terms shall be ended at such election of said party of the first part, its successors, officers, agents, attorneys or assigns as aforesaid, or in any other way, the party of the second part does hereby covenant and agree to surrender and deliver up said above described premises and property, peaceably, to the said party of the first part, its successors, officers, agents, attorneys or assigns, immediately upon the determination of said term as aforesaid; and if it shall remain in the possession of the same one day after notice of such default, or after the determination of this lease, in any of the ways above named, it shall be deemed guilty of a forcible detainer of the premises under the statute, and shall be subject to all the conditions and provisions above named, and to eviction and removal, forcibly or otherwise, with or without process of law, as above stated.

And the party of the second part hereby agrees that in case any additional taxes are levied or assessed upon said property by reason of the construction of any improvements or appurtenances thereon by said second party, that said second party shall pay or cause to be paid all of said taxes which may be so levied or assessed.

And it is further understood and agreed by the said party of the second part that neither the right given in this lease to said party of the first part to collect the rent that may be due under the terms of this lease, by sale or any proceedings under the same shall in any way affect the right of said party of the first part to declare this lease void and the term hereby created ended, as above provided, upon default made by said party of the second part.

And the said party of the second part hereby waives its right to any notice from said party of the first part of its election to declare this lease at an end, under any of its provisions, or any demand for the payment of rent, or the possession of premises leased herein; but the simple fact of the non-payment of the rent reserved shall constitute a forcible detainer as aforesaid.

It is further understood and agreed that this lease shall be subject to the easement of the Sanitary District of Chicago for all purposes within its corporate powers not destructive or unnecessarily injurious to the rights and privileges of the party of the second part.

The said party of the second part further agrees not to remove any buildings or improvements from said premises without the written consent of the said party of the first part, and that the said second party shall pay and discharge all costs and attorneys fees and expenses that shall arise from enforcing the covenants of this indenture by the party of the first part.

It is further understood and agreed that all the conditions and covenants contained in this lease shall be binding upon the successors and assigns of the parties to these presents, respectively.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals the day and year first above written.

SANITARY DISTRICT OF CHICAGO.

(SEAL.) By.....  
President.

Attest:

.....  
(Clerk.) .....

Attest:

(SEAL.) By.....

The following is the form of lease to be entered into with the Peoples' Telephone Company:

THIS INDENTURE, Made this 15th day of May, in the year of our Lord One Thousand Nine Hundred and One, between the Sanitary District of Chicago, party of the first part, and the Peoples Telephone Company, a corporation organized and existing under the laws of the State of Illinois, party of the second part:

WITNESSETH, That the said party of the first part for and in consideration of the covenants and agreements hereinafter mentioned to be kept and performed by the said party of the second part, its legal representatives and assigns, has demise and leased to the said second party the right and privilege to place on the bridge belonging to the said first party and commonly known as the Lockport Road Bridge the necessary cross arms for the purpose of carrying its



wires across the channel; all situate in the County of Cook and State of Illinois.

TO HAVE AND TO HOLD the above described privilege unto the said party of the second part, its legal representatives and assigns. Said lease to be terminated upon either party giving ten (10) days notice in writing.

And the said party of the second part in consideration of the leasing of the privilege aforesaid by the said party of the first part to the said party of the second part as rent for said privilege, the free service on any of said lines now in use or to be used hereafter, and also to erect a line of poles running from the east end of said bridge on the road to the Controlling Works connecting with a telephone there.

It is further agreed by the party of the second part that neither it nor its legal representatives will sub-let said privilege or assign this lease without the written assent of said party of the first part first had and obtained thereto.

It is further understood and agreed that all the conditions and covenants contained in this lease shall be binding upon the legal representatives, successors and assigns of the parties to these presents, respectively.

IN WITNESS WHEREOF the said parties have hereunto set their hands and seals the day and year first above written.

#### SANITARY DISTRICT OF CHICAGO.

By

..... [SEAL.]

Attest:

.....

Clerk.

By

..... [SEAL.]

Attest:

.....

#### REQUISITIONS.

The Clerk presented the following requisitions:

No. 602. Engineering Department  
(quarterly supplies, ending June  
30, 1901), as per schedule.....\$344 00

No. 1201. Police Department (sun-  
dry supplies for use at police sta-  
tion, Lockport), not to exceed.... 100 00

Mr. Cloldt, seconded by Mr. Carter,  
moved that the above requisitions from the

Engineering and Police Departments be  
allowed.

The roll being called, it was so ordered.

Yeas—Messrs. Baker, Braden, Carter,  
Cloldt, Jones, Legner, Smyth, Webb and  
Wenter—Nine.

Nays—None.

#### COMMUNICATION FROM JOHN GIBSON HALE.

The Clerk presented a communication  
from John Gibson Hale, of Chicago,  
Ill., being in reference to the matter  
of the State of Missouri and the City of St.  
Louis vs. The State of Illinois and the  
Sanitary District of Chicago, now pending  
in the Supreme Court of the United States.

The following is the communication:

CHICAGO, May 14, 1901.

*Trustees Sanitary District of Chicago, Security  
Building, City:*

GENTLEMEN—I have a plan which in my  
judgment, if followed, will bring the City  
of St. Louis and allied interests fighting  
our Canal to their senses, to the extent that  
they will abandon the fight. It involves  
the withholding of the Government ap-  
propriation for the St. Louis exposition.  
If you care to consider the matter I shall  
be glad to come before your body and ex-  
plain. I called the attention of President  
Jones to it some days ago, but he did not  
believe in fighting that way and dismissed  
it. In a contest of this character, I be-  
lieve it is entirely proper to avail of all  
lawful and fair means. Certainly the in-  
terests back of this attack upon the canal  
are doing no less.

Awaiting your pleasure, I am

Yours very truly,

JOHN GIBSON HALE.

Mr. Baker, seconded by Mr. Wenter,  
moved that the communication be printed  
and placed on file.

The motion prevailed unanimously and  
it was so ordered.

#### COMMUNICATION FROM THE TRUSTEES OF THE TOWN OF CICERO.

The Clerk presented the following com-

munication from the Board of Trustees of the Town of Cicero:

THE TOWN OF CICERO, }  
 Presidents Office,  
 AUSTIN, COOK CO., ILL. }

To the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Board of Trustees of the Town of Cicero would respectfully represent to your Honorable Body that a report having reached the residents of this town to the effect that your Honorable Body contemplated levying a special assessment on the territory draining into the Central Avenue outfall sewer, to connect the same with the main Drainage Channel, has caused considerable uneasiness on the part of property owners in our town, and while we have been assured by members of the Drainage Board that no such action is contemplated, we deem it our duty to call your attention in this formal manner to the peculiar situation of Cicero in relation to the Sanitary District, and our exceptional claims to considerate treatment at your hands.

When the Drainage Channel was projected its sole purpose was to divert the sewage then being carried into Lake Michigan, from whence the water supply of Chicago is drawn. The water supply of Cicero comes from artesian wells, and is without danger of sewer contamination, but our natural drainage being into the west fork of the South Branch of the Chicago River, which in turn would flow into the main river and Lake Michigan, it was feared that our right to drain into the Chicago River might at some future time be questioned were we outside the Sanitary District then being formed, and for this reason alone Cicero consented to be included in the District. Since then we have contributed more than \$500,000 to the general sanitary funds, with a continuous tax before us, and the only benefit we can derive from this great outlay is the assurance of perfect drainage, while a pure water supply is the return given every other portion of the Sanitary District.

With the rapid increase of population now taking place in our town, there will undoubtedly within a few years come a time when provision will have to be made for direct connection of the outlet of our

sewerage system by a proper conduit with the Drainage Channel.

We, therefore, respectfully request you to take such action as will satisfy our citizens that when the necessity arises, such connection will be made by the Sanitary District and thereby allay the fears of our property owners that they will be subjected to a special assessment when such connection is made.

THE BOARD OF TRUSTEES OF THE TOWN OF CICERO.

O. D. ALLEN,  
*President.*

Approved this 13th day of May A. D. 1901,  
 by the Board of Trustees of the Town of Cicero.

J. E. TRISTEAM,  
*Town Clerk.*

Mr. Braden, seconded by Mr. Cloldt, moved that the communication be printed in the Proceedings of the Board, and referred to the Committee on Engineering.

The motion prevailed unanimously, and it was so ordered.

#### APPLICATION FOR RENEWAL OF LEASE.

The Clerk presented a communication from the Lemont Limestone Company, making application for renewal of lease of certain lands in the southeast quarter of Section 26, in Will County, Illinois.

By unanimous consent, the communication was referred to the Committee on Finance.

#### COMMUNICATION FROM THE HIGHWAY COMMISSIONERS OF THE TOWN OF JOLIET.

The Clerk presented a communication signed by William McCowan, Nathan Bennett and Frank O. Wood, Highway Commissioners of the Town of Joliet, requesting that they be granted the privilege of removing the stone taken out of the river in Joliet, which is now piled on the bank between Cass and Jackson Street in said city, and further requesting that they be allowed to place a crusher on the ground at that point for the purpose of crushing

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the material desired and using the same on the roads in said town.

On motion of Mr. Baker, seconded by Mr. Smyth, the communication was referred to the Committee on Engineering.

COMMUNICATION FROM THE HALL BAS-  
CULE BRIDGE COMPANY.

The Clerk presented a communication from the Hall Bascule Bridge Company offering to furnish the District full plans for the construction of a bascule bridge of the improved Hall type across the Chicago River at Harrison Street for a sum not exceeding \$3,000, the Board to be allowed the

use of said plans without payment of royalty.

Mr. Wenter, seconded by Mr. Braden, moved that the communication be referred to the Committee on Engineering.

The motion prevailed unanimously and it was so ordered.

ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Clout, the Board adjourned.

*A. R. Porter.*  
CLERK

May 15, ]

—7190—

[1901

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

MAY 22, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Thirty-first Regular Meeting of the Board of Trustees of the Sanitary District of Chicago, was held in the Rooms of the Board, Security Building, Wednesday, May 22, 1901, at 2 o'clock, P. M.

The President, Mr. Jones, took the chair, and the meeting being called to order, there were then

*Present*—Messrs. Braden, Carter, Cloldt,

Jones, Smyth, Webb and Wenter—Seven members.

*Absent*—Messrs. Baker and Legner—Two members.

Messrs. Baker and Legner arriving subsequently.

**MINUTES.**

On motion of Mr. Carter, seconded by Mr. Cloldt, the minutes of the regular meeting held May 15, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

Heldmaier & Neu (Section 17, May 15, 1901) .....	\$ 2,596 12
Page & Shnable (Ashland Avenue Bridge, May 15, 1901) .....	3,640 52

Illinois Central Railroad Company (Pan Handle Temporary Bridge, Section O).....	\$ 5 93	
Chicago Junction Railway Company (Pan Handle Temporary Bridge, Section O).....	339 50	
Chicago Junction Railway Company (Pan Handle Temporary Bridge, Section O).....	116 11	
Chicago Junction Railway Company (Pan Handle Permanent Bridge, Section O).....	22 75	
Chicago Terminal Transfer Railroad Company (Pan Handle Permanent Bridge, Section O).....	17 81	
Pittsburgh, Cincinnati, Chicago and St. Louis Railroad Company (Pan Handle Permanent Bridge, Section O).....	26 42	
Chicago Sash, Door and Blind Company (Controlling Works, Section 15).....	13 77	
Rittenhouse & Embree Company (Controlling Works, Section 15).....	37 00	
Thomas F. Ryan (Controlling Works, Section 15).....	49 32	
Western Stone Company (Controlling Works, Section 15).....	7 00	
Isham Randolph (expenses, sundry sections).....	19 40	
	<u>\$</u>	6,941 65

## ENGINEERING DEPARTMENT.

Isham Randolph (expense).....	\$ 482 83	
G. M. Wisner (expense).....	30 67	
	<u>\$</u>	513 55

## CLERICAL DEPARTMENT.

H. Schultz & Co. (paper boxes).....	\$	3 00
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## LAW DEPARTMENT.

W. M. Springer (traveling expenses).....	\$	67 15
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## POLICE DEPARTMENT.

Chris. Redeghiero (rent Lockport Station to May 15, 1901).....	\$	52 50
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## GENERAL ACCOUNT.

Chas. G. Sachse (indexing Proceedings 1900).....	\$ 100 00	
Dunham Towing and Wrecking Company (docking and repairs, Steamer "Juliet").....	97 84	
	<u>\$</u>	197 84

## MAINTENANCE ACCOUNT.

Isham Randolph (Bridgeport Pumping Works).....	\$ 564 24	
Grand total.....	<u>\$</u>	8,339 98

Mr. Carter, seconded by Mr. Cloldt, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Braden, Carter, Cloldt, Jones, Smyth, Webb and Wenter—Seven.

*Nays*—None.

COMMUNICATION FROM PRESIDENT JONES TRANSMITTING THE ENGINEERS' REPORT OF THE SPECIAL COMMISSION OF EXPERTS.

The Clerk presented the following communication from President Jones:

CHICAGO, May 22, 1901.

Honorable Board of Trustees, Sanitary District of Chicago:

GENTLEMEN—I have the honor to trans-

mit herewith the Engineers' report of the Special Commission, heretofore authorized by your Honorable Body to consider the plans of the Sanitary District for providing the volume of water in the Main Drainage Channel required by law.

I suggest that due consideration be given the report herewith submitted, to the end that a permanent record thereof may be made of, at least, those portions prominently affecting the future work of the Sanitary District.

Respectfully submitted,  
(Signed) ALEX. J. JONES,  
President.

Mr. Carter, seconded by Mr. Wenter, moved that the communication and report be received and referred to the Committee on Engineering for further consideration.

The motion prevailed unanimously and it was so ordered.

#### MONTHLY REPORT OF THE ENGINEERING DEPARTMENT.

The Clerk presented the report of the Engineering Department for the month of April, 1901, which, by unanimous consent, was ordered printed in the Proceedings and placed on file.

The following is the report:

CHICAGO, May 18, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith present the report of the Engineering Department for the month of April, 1901, giving the detailed operations of same.

The value of construction work done during the month was \$25,681.05. Vouchers were issued on this account to the amount of \$25,302.51.

The engineering expenses for the month were \$9,022.76, divided as follows: Salaries, \$5,993.37; supplies, etc., \$3,029.39.

The expenses at the Bridgeport Pumping Works were \$2,017.98. Details of the above figures are given in tabulated statements submitted herewith.

*Chicago River*—On the 18th the contractor began the work of widening the river immediately west of Main Street on what

was known as the Boal property and on the 23d work was begun on what was known as the Law, Hoyne and King properties. The Louis Hutt dock work was practically completed during the month.

The work of the contractors for the superstructure of the C. T. T. R. R. Co's. Bridge for the month was as follows: 11th, finished raising east side; 12th, began taking down tower at east side and laid air pipe; 13th, laid cables; 15th, cables and small pipes stretched and began riveting east side; 18th, finished taking down tower and erecting machinery support on east side; 23d, began erecting tower on west side; 23rd and 24th, lowered tail pieces on west side; 30th, began iron work on west side lower section of top chord of each truss.

The contractors for the substructure of the Canal Street Bridge completed the removal of the old sub and superstructure. The excavation, which was begun on March 18th, was carried on during the month.

Some work was done at the Main Street Bridge, removing the old structure. No excavation was done at this point, as it was impossible to get a permit from the City of Chicago to cut off the water in the 36-inch water main, which interfered with the work at this place.

At the Ashland Avenue Bridge it was decided to excavate—23 C. O. D., instead of—30 C. O. D., for the foundation of the south pier. The material was so hard below—24 that it was almost impossible to excavate it by means of pick and shovel. The contractors finished the excavation for this south pier and started putting in concrete on the last of the month.

*Section "O"*—Two tests were made on one of the Channel spans of the Eight-Track Bridge during the month—one on the 6th and the other on the 20th. The tests proved the bridge to be fully up to the requirements, and the traffic was soon after turned upon same. The first train of the C. T. T. R. R. Co. passed over the bridge on the 21st; of the Pan Handle on the 24th, and of the O. J. Ry. Co. on the 25th. Considerable work was done by the railroad companies in interest at this point in making track changes necessary to the occupation

of the new bridge. A force of men of the Union Switch and Signal Company were on the ground making necessary changes in the interlocking system.

*Section "K"*—The contractor for the grading of the roadbed for the spur track on this section continued work during the entire month with a considerable force. The work was uncompleted at the end of the month.

*Section 17*—The dredge began excavating the coffer dam of the Economy Light and Power Company on the 1st and completed the removal of same at the end of the month. The material excavated was scowed to the north end of the section and deposited on the west bank. The boom at the junction of the Channel with the Upper Basin was replaced between the 1st and 8th.

*Bridgeport Pumping Works*—A small force of men worked to the 24th, at which time a full force was organized and the pumps put in operation.

*Telephone System*—During the month 11,000 feet of stolen wire was recovered by the Police Department and returned to the warehouse.

In the Drafting Department the following drawings were made during the month: Map showing contours, etc., of Doud prop-

erty near Summit Road; map showing subdivisions, etc., of tract of land north of Thirty-first Street; copy of plan showing contemplated improvements of river near Canal Street Bridge; map showing land required for the widening of the South Branch of the River between Sixteenth and Maxwell Streets, and various plans for the Expert Commission.

The checking of the plans for the High-teenth Street Bridge was completed, and for the Randolph Street Bridge was begun. The State Street Bridge plans were completed by the Frank M. Montgomery Company with changes incorporated as asked for by the District.

Besides the work done in connection with the operations of the contractors and that mentioned above, the engineering corps were principally engaged in the taking of flow measurements and of high-water marks in the Illinois Valley; in computing finals for Section 17 and in making sundry estimates and reports for the Expert Commission.

I estimate that the expenses for May will be \$80,000.00.

Respectfully submitted,

(Signed)

ISHAM RANDOLPH,

Chief Engineer.



**SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.**  
**CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF APRIL, 1901.**

CLASSIFICATION.	ENGINEERING EXPENSES			Construc- tion.	BRIDGEPORT PUMPS	
	Salaries.	Supplies, Etc.	Totals.		Salaries.	Supplies, Etc.
Maps and Plans for General Use.....	\$ 40 00	\$ 2 67	\$ 2 67	.....	.....	.....
Chicago River Surveys.....	75 00	1 50	41 50	.....	.....	.....
Right of Way.....	1,044 40	534 37	75 86	.....	.....	.....
Hydraulic Measurements.....	250 75	.....	1,568 77	.....	.....	.....
Mortar, Sand and Cement Tests.....	125 00	151 00	250 75	.....	.....	.....
Photographs of Works.....	.....	7 30	276 00	.....	.....	.....
Public Reports.....	1,401 55	2,085 42	7 30	.....	.....	.....
Expert Commission.....	686 50	12 35	3,486 97	.....	.....	.....
Chicago River, Dredging, Docking, etc.....	.....	40	598 85	\$ 1,368 27	.....	.....
State Street Bridge, Chicago River.....	100 00	50	100 50	.....	.....	.....
Randolph Street Bridge, Chicago River.....	418 75	101 00	519 75	.....	.....	.....
C. T. L. R. Co.'s Bridge, Chicago River.....	10 00	.....	100 00	.....	.....	.....
Eighteenth Street Bridge, Chicago River.....	385 96	39 82	405 78	1,641 50	.....	.....
Canal Street Bridge, Chicago River.....	376 12	41 78	417 90	700 00	.....	.....
Main Street Bridge, Chicago River.....	386 01	89 79	435 80	1,899 68	.....	.....
Ashland Avenue Bridge, Chicago River.....	70 00	78	70 78	.....	.....	.....
Main Channel and River Diversion Const.....	30 00	.....	30 00	1,998 27	.....	.....
Panhandle Temporary Bridges, Main Channel, Section O.....	190 00	4 68	194 68	1,742 62	.....	.....
Panhandle Permanent Bridge, Main Channel, Section O.....	50 00	1 50	51 50	51 27	.....	.....
Belt Ry. Co. of Chicago's Permanent Bridge, Main Channel, Section K.....	873 38	13 77	887 10	15,900 95	.....	.....
Disposal Works and Joliet Project.....	.....	.....	.....	.....	\$ 629 84	\$1,888 09
Bridgeport Pumping Works.....	.....	.....	.....	.....	.....	.....
Totals.....	\$5,993 37	\$3,099 39	\$ 9,022 76	\$25,302 51	\$ 629 84	\$1,888 09
					Totals.....	\$2,017 98

## SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—QUANTITIES.

*Amount Done During April, 1901.*

DESIGNATION.	Glacial Drift.	Solid Rock.
Chicago River, dredging, etc.....	2,156	
Section 17.....	15,000	6,160
Canal Street Bridge, Chicago River.....	1,800	
Ashland Avenue Bridge, Chicago River.....	1,500	
Total.....	19,956	6,150

## SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—VALUES.

*Amount Earned During April, 1901.*

DESIGNATION.	CHICAGO RIVER.		MAIN CHANNEL.		Joliet Project.	Totals.
	Dredging, Etc.	Permanent Bridges.	Temporary Bridges.	Permanent Bridges.		
Chicago River, dredging, etc..	\$ 1,528 44	.....	.....	.....	\$ 1,528 44	
Section O.....	.....	.....	\$ 1,998 27	.....	1,998 27	
Section 17.....	.....	.....	.....	.....	\$ 13,663 45	13,663 45
Section 18.....	.....	.....	.....	.....	1,850 00	1,850 00
Canal Street Bridge, Chicago River.....	\$ 1,876 00	.....	.....	.....	.....	1,876 00
Main Street Bridge, Chicago River.....	.....	800 00	.....	.....	.....	800 00
Ashland Ave. Bridge, Chicago River.....	.....	2,171 00	.....	.....	.....	2,171 00
Eight-track Bridge, Main Channel, Section O.....	.....	.....	.....	\$ 1,742 62	.....	1,742 62
Belt Ry. Co. of Chicago Bridge, Main Channel, Section K....	.....	.....	.....	51 27	.....	51 27
Totals.....	\$ 1,528 44	\$ 4,847 00	\$ 1,998 27	\$ 1,793 89	\$ 15,513 45	\$ 25,681 05

REPORT SUBMITTING FORM OF LEASE TO BE ENTERED INTO WITH THE LEMONT LIMESTONE COMPANY.

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee as follows:

CHICAGO, May 22, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance herewith presents a form of lease to be executed by the District with the Lemont Limestone Company for certain dockage lands belonging to the District along the banks of the Main Drainage Channel.

Said lease is for the term of one (1) year, at an annual rental of two dollars (\$2.00) per lineal or running foot of water front, and is in conformity with the form ordered by the Board of Trustees for use in cases as above.

The Committee, therefore, recommends that the President and Clerk be authorized and directed to execute said lease on behalf of the District with the said Lemont Limestone Company, when the said Company shall have executed the same and complied with the terms and provisions thereof which may be deemed necessary as conditions precedent to the execution of said lease.

Respectfully submitted,

(Signed) Z. R. CARTER,  
Chairman.  
JOS. C. BRADEN,  
FRANK WENTER,  
FRANK X. CLOIDT,  
THOMAS A. SMYTH,  
ALEX. J. JONES,  
Committee on Finance.

(One enclosure.)

Mr. Carter, seconded by Mr. Braden, moved that the report be adopted and the recommendations contained therein concurred in.

The motion prevailed unanimously and it was so ordered.

The following is the form of lease to the Lemont Limestone Company, and to be executed by the President and Clerk of the District:

**THIS INDENTURE**, made this 23d day of May, A. D. 1901, between the Sanitary District of Chicago, party of the first part, and the Lemont Limestone Company, a corporation organized and existing under the laws of the State of Illinois, party of the second part.

**WITNESSETH**, That said party of the first part for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, its successors and assigns, has demised and leased to the said party of the second part all those premises situate, lying and being in the County of Will and State of Illinois, known and described as follows, to-wit:

A piece of land in the southeast quarter of Section 26, Township 37 North, Range 10 East of the Third Principal Meridian, having two hundred (200) feet frontage on the west bank of the Main Drainage Channel, being one hundred (100) feet wide, together with a right of way sixteen (16) feet wide, extending from the center point of said Section 26 in a southeasterly direction to the Main Drainage Channel, as shown in the accompanying plat. To be used for the purpose of shipping stone.

To have and to hold the above described premises unto the said party of the second part, its successors and assigns from the 24th day of May, in the year of our Lord, One Thousand Nine Hundred and One, for and during and until the 23d day of May, in the year of our Lord, One Thousand Nine Hundred and Two.

And the said party of the second part in consideration of the leasing of the premises aforesaid by the said party of the first part to the said party of the second part, does covenant and agree with the said party of the first part, its successors and assigns, to pay to the said party of the first part as rent for the said demised premises, at the office of said first party, in the City of Chicago, the sum of two (\$2.00) dollars per lineal or running foot of water front per annum, payable in equal monthly installments in advance.

It is hereby expressly agreed that the said party of the second part shall have preference to renew the lease for said lands for the period of one (1) year after the expiration of this lease if the par-

ties hereto shall agree upon the terms and conditions of said new lease.

It is expressly covenanted and agreed by the said party of the second part, its successors and assigns, that it will use said above described premises for dockage and shipping purposes only; and that it will not use said premises, or suffer them to be used, for the sale of wines, ales, liquors, or any other intoxicating beverages whatsoever, or for the purpose of gambling in any manner whatsoever.

It is further expressly covenanted and agreed, however, by and between the parties aforesaid, that the said party of the first part, its successors or assigns, reserves to itself the right at any time, at its election, to declare said lease terminated, and either with or without process of law, and using such force as may be necessary in so doing to re-enter said demised premises, and again re-possess and enjoy said premises as in their first and former state. Said party of the first part hereby covenants and agrees in case it does terminate this lease as above provided, and for no cause given by said party of the second part to pay to said party of the second part such sum of money as shall be appraised as damages caused by such termination of this lease, said damages to be appraised by a board of three (3) arbitrators, one to be appointed by the party of the first part, and one by the party of the second part, and said two so appointed to choose a third one. The award of said board of arbitrators to be final and binding upon both parties to this lease.

It is further covenanted and agreed by the said party of the second part that it will pay, or cause to be paid, all water rates and all taxes and assessments that may be laid, charged or assessed on said premises, pending the existence of this lease, or if at any time after any tax, assessment or water rate shall have become due or payable, the party of the second part, or its legal representatives shall neglect to pay such water rates, tax or assessment, it may be lawful for the party of the first part to pay the same at any time thereafter, and the amount of any and all such payments so made by the party of the first part shall be deemed and taken and are hereby declared to be so much additional and further rent for the above demised premises due from and payable by the party of the second part; and may be collected in the same manner by distress or otherwise, as is hereinafter provided for the collection of other rents to grow due thereon.

And it is expressly understood and agreed by the party of the second part hereto, or its successors and assigns, that the whole amount of rent reserved and agreed to be paid for said above described premises, and each and every installment thereof, shall be and is hereby declared to be a valid and first lien upon any and all buildings and improvements on said premises, or that may at any time be erected, placed

or put on said premises by said party of the second part, its successors or assigns, and upon its or their interests in this lease and the premises hereby demised; and that whenever and as often as any installment of rent or any other amount above declared to be deemed and taken as rent shall become due and remain due and unpaid for one day after the same becomes due and payable, said party of the first part, its successors, agents, attorneys, or assigns, may sell at public auction, to the highest bidder for cash, after having first given ten days notice of the time and place of such sale in some newspaper published in Will County, all the buildings and improvements on the said premises, and all the right, title and interest acquired by the said party of the second part under this lease to the premises herein described, and as the attorney of the said party of the second part, hereby irrevocably constituted, may make to the purchaser or purchasers thereof a suitable and proper transfer, bill of sale, or deed of the same, and out of the proceeds arising from said sale, after first paying all costs and expenses of said sale, including commissions and attorneys fees, retain to itself the whole amount due on said lease up to the date of said sale, rendering the surplus, if any, to said party of the second part, its successors, attorneys or agents, which sale shall be a perpetual bar to and against all rights and equities of said party of the second part, its successors and assigns, in and to the property sold.

And the party of the second part further covenants with the party of the first part that it will keep said demised premises in a clean and wholesome condition, in accordance with the ordinances and regulations of Will County and the direction of the health officers thereof, and that at the expiration of the time in this lease mentioned it will yield up said premises to the party of the first part in as good condition as when the same were entered upon by the party of the second part, loss by fire or inevitable accident and ordinary wear excepted.

It is further agreed by the party of the second part that neither it nor its legal representatives will underlet said premises, or any part thereof, or assign this lease without the written assent of said party of the first part first had and obtained thereto, nor use, or suffer them to be used, for any other purpose than that above mentioned.

It is expressly understood and agreed by and between the parties aforesaid that if the rent above reserved, or any part thereof, shall be behind or unpaid on the day of payment whereon it ought to be paid, as aforesaid, or if default shall be made in any of the covenants herein contained to be kept by the party of the second part, its successors or assigns, it shall or may be lawful for the party of the first part, or its successors, agents, attorneys or assigns, at its election, to declare said term ended, and into the said demised premises, or any part thereof,

either with or without process of law, to re-enter, and the party of the second part, or any other person or persons, occupying, in or upon the same, to expel, remove and put out, using such force as may be necessary in so doing, and the said premises again to repossess and enjoy as in their first and former estate, and to distrain for any rent that may be due thereon upon any property belonging to the party of the second part, whether the same be exempt from execution and distress by law or not; and the party of the second part in that case hereby waives all legal rights which it now has or may have, to hold or retain any such property under any exemption laws now in force in this state, or in any other way, meaning and intending hereby to give the party of the first part, its successors, officers, agents, attorneys or assigns, a valid and first lien upon any and all the goods, chattels, or other property belonging to the party of the second part as security for the payment of said rent, in manner aforesaid, anything hereinbefore contained to the contrary notwithstanding. And if at any time said terms shall be ended at such election of said party of the first part, its successors, officers, agents, attorneys or assigns as aforesaid, or in any other way, the party of the second part does hereby covenant and agree to surrender and deliver up said above described premises and property, peaceably, to the said party of the first part, its successors, officers, agents, attorneys or assigns, immediately upon the determination of said term as aforesaid; and if it shall remain in the possession of the same one day after notice of such default, or after the termination of this lease, in any of the ways above named, it shall be deemed guilty of a forcible detainer of the premises under the statute, and shall be subject to all the conditions and provisions above named, and to eviction and removal, forcibly or otherwise, with or without process of law, as above stated.

And the party of the second part hereby also agrees that in case any additional taxes are levied or assessed upon said property by reason of the construction of any improvements or appurtenances thereon by said second party, that said second party shall pay or cause to be paid all of said taxes which may be so levied or assessed.

And it is further understood and agreed by the said party of the second part that neither the right given in this lease to said party of the first part to collect the rent that may be due under the terms of this lease, by sale or any proceedings under the same shall in any way affect the right of said party of the first part to declare this lease void and the term hereby created ended, as above provided, upon default made by said party of the second part.

And the said party of the second part hereby waives its right to any notice from said party of the first part of its election to declare this lease at an end, under any of its provisions, or any de-

mand for the payment of rent, or the possession of premises leased herein; but the simple fact of the non-payment of the rent reserved shall constitute a forcible detainer as aforesaid.

It is further understood and agreed that this lease shall be subject to the easement of the Sanitary District of Chicago for all purposes within its corporate powers not destructive or unnecessarily injurious to the rights and privileges of the party of the second part.

The said party of the second part further agrees not to remove any buildings or improvements from said premises without the written consent of the said party of the first part, and that the said second party shall pay and discharge all costs and attorneys fees and expenses that shall arise from enforcing the covenants of this indenture by the party of the first part.

It is further understood and agreed that all the conditions and covenants contained in this lease shall be binding upon the successors and assigns of the parties to these presents, respectively.

It is further agreed by the party of the second part that it will not build on the right of way of the Sanitary District of Chicago, leased herein, a construction of any kind whatsoever without the written assent of the said party of the first part, first had and obtained thereto, and that it more particularly will not construct any crossing of the Des Plaines River without the written approval of the said first party.

SANITARY DISTRICT OF CHICAGO.

(SEAL.) By.....

*President.*

Attest:

.....  
*Clerk.*

LEMONT LIMESTONE COMPANY.

(SEAL) By.....

*President.*

Attest:

.....  
*Secretary.*

**REPORT IN REFERENCE TO ADVERTISEMENT FOR PROPOSALS FOR THE ERECTION OF SUB AND SUPERSTUCTURES FOR BRIDGES ACROSS THE CHICAGO RIVER AT STATE AND HARRISON STREETS.**

Mr. Braden, Chairman of the Committee on Engineering, presented a report from the Committee as follows:

CHICAGO, May 20, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on En-

gineering, to which was referred the matter of the advertisement of contracts for sub and superstructures for bridges to be erected across the Chicago River at State Street and Harrison Street, herewith reports that they have duly advertised same in accordance with the instruction of your Honorable Body.

(Signed)

JOS. C. BRADEN,

*Chairman.*

THOMAS J. WEBB.

FRANK WENTER,

FRANK X. CLOIDT,

THOMAS A. SMYTH,

ALEX. J. JONES,

*Committee on Engineering.*

Mr. Braden, seconded by Mr. Smyth, moved that the report be adopted.

The motion prevailed unanimously and it was so ordered.

**COMMUNICATION FROM JOHN HERBERT CLAIMING DAMAGES FOR ALLEGED OVERFLOW OF CERTAIN LANDS.**

The Clerk presented the following communication from John Herbert:

*To the Trustees of the Sanitary District of Chicago:*

Please take notice that I claim damages to the amount of four hundred and seventy dollars, by reason of flooding a portion of my land along Jackson Creek, caused by the rise of the Desplaines River on account of the water coming into it through the Controlling Works at Lockport, Illinois, my said land being described as follows:

The west one hundred and seven (107) acres of the southeast quarter of Section fifteen (15), in Township thirty-four (34) North, and of Range nine (9) East of the Third Principal Meridian, excepting and reserving a strip of land two (2) rods wide off from and across the west side of said premises; said described premises are situated in Will County, Illinois; and that I intend to sue for said damages.

Dated this 9th day of May, A. D. 1901.

JOHN HERBERT.

By unanimous consent the communica-

tion was ordered printed in the Proceedings and placed on file.

COMMUNICATION FROM OSSIAN GUTHRIE.

The Clerk presented a communication from Ossian Guthrie requesting the Board to resume the consideration of constructing controlling works in the vicinity of Kedzie and California avenues, and that the Board take such action as will enable him to present his plans to the Committee on Engineering.

On motion of Mr. Cloidt, seconded by Mr. Braden, the communication was referred to the Committee on Engineering.

ADJOURNMENT.

On motion of Mr. Cloidt, seconded by Mr. Baker, the Board adjourned.

*A. R. Porter*  
CLERK

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

MAY 29, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Thirty-second Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Wednesday, May 29, 1901, at 2 o'clock P. M.

The President, Mr. Jones, took the

chair, and the meeting being called to order, there were then

*Present*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine members.

**MINUTES.**

On motion of Mr. Wenter, seconded by Mr. Legner, the minutes of the regular meeting held May 22, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**PAY ROLLS.**

Engineering Department (Chief Engineer's, May, 1901).....	\$2,658 33
Engineering Department (Div. of Construction, May, 1901).....	3,444 88
Engineering Department (Special Service, May, 1901).....	318 80
Engineering Department (Expert Commission, Discharge roll, May, 1901).....	22 50
	\$ 6,439 01

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Clerical Department (Clerk's roll, May, 1901).....	\$	933 33	
Law Department (Attorney's roll, May, 1901).....		1,976 68	
Treasury Department (Treasurer's roll, May, 1901).....		375 00	
General Account (General roll, May, 1901).....	\$	200 00	
General Account, (Special roll, May, 1901).....		261 50	
General Account, (Trustees' roll, May, 1901).....		2,383 33	
			2,794 83
Police Department (Marshal's roll, May, 1901).....			1,705 66
Maintenance Account (Controlling Works, May, 1901).....	\$	550 00	
Maintenance Account (Bridgeport Pumping Works, May, 1901).....		1,500 42	
Maintenance Account (Bridgeport Pumping Works, Discharge roll, May, 1901).....		94 33	
			-2,144 75
Total.....	\$	16,369 26	

## CONSTRUCTION ACCOUNT.

P., C., C. & St. L. Ry. Co. (Pan Handle temporary bridge, Sec. "O")...	\$	948 04	
Pennsylvania Company (Pan Handle temporary bridge and permanent bridge, Sec. "O").....		3,231 37	
Pennsylvania Company (Pan Handle temporary and permanent bridges, Sec. "O").....		685 29	
			4,864 70

## ENGINEERING DEPARTMENT.

W. G. Derbyshire (Bridge Inspection, May, 1901).....	\$	100 00	
Racine Boat Manufacturing Company (account purchase steel launch).....		625 00	
Ralph Modjeski (service, April, 1901, Eight-Track Bridge).....		242 00	
Isham Randolph (expense, flow measurements, etc.).....		280 01	
			1,247 01

## LAW DEPARTMENT.

J. S. Runnells (salary, April, 1901).....	\$	416 66	
J. S. Runnells (salary, May, 1901).....		416 67	
Edward Willmann (witness fees).....		50 00	
			883 33

## POLICE DEPARTMENT.

Thos. F. Ryan (coal, Lockport Station).....	\$	10 88	
Standard Oil Company (kerosene oil).....		4 08	
			14 96

## GENERAL ACCOUNT.

Isham Randolph (telephone system).....	\$	229 00	
Chicago Daily Republican (advertising).....		31 00	
American Contractor Publishing Company (advertising).....		21 60	
Inter-Ocean Publishing Company (advertising).....		4 20	
Geo. B. Carpenter & Co. (sundries, Steamer Juliet).....		19 20	
Thos. M. Sullivan (provisions, Steamer Juliet).....		16 93	
Thos. Alexander (repairing bell, Steamer Juliet).....		3 00	
Jandus Electric Company (arc light in Board room).....		17 00	
Brinks' C. C. Ex. Co. (expressage).....		3 35	
J. L. Pickering (Illinois Blue Book, 1901).....		4 00	
John F. Higgins (printing index to Proceedings for October, November and December, 1900).....		146 22	
			495 50

## MAINTENANCE ACCOUNT.

Isham Randolph (warehouse expenditure).....	\$	198 50	
Grand total.....	\$	24,068 26	



Mr. Carter, seconded by Mr. Cloldt, moved that the vouchers as read and shown above be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden (except as to Engineering Department Expert Commission discharge pay roll for \$22.50, on which Mr. Braden was excused from voting), Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

#### MONTHLY REPORT OF THE CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department, for the month of April, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report :

CHICAGO, May 28, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith submit the report of the Clerical Department for the month of April, 1901.

The total expenditure of the District for the month of April, 1901, was \$495,409.14, of which amount the sum of \$128,075.05 was paid in regular warrants, and the sum of \$372,334.09 by the Treasurer of the District, for which no warrant was required. Of the amount paid by the Treasurer, the sum of \$28,072.24 was for 1899 tax warrants redeemed, \$321,274.57 for 1900 tax warrants redeemed, and \$22,987.28 for interest on same.

The total amount expended on account of, and charged to, the Clerical Department was \$1,084.99, of which amount the sum of \$998.84 was for salaries and the sum of \$86.65 for general office expenses.

The total amount expended for account of, and charged to, the General Account was \$4,045.49, divided as follows:

Rent, April, 1901.....	\$ 518 38
Printing.....	393 96
Advertising.....	147 48
Salaries.....	2,681 84
Telephone line.....	16 68
General expenses.....	287 75
Total.....	\$ 4,045 49

Of the total Tax Levy Warrants heretofore issued, the following amounts were still outstanding May 1, 1901:

Against the Tax Levy of 1896.....	\$ 10,963 89
Against the Tax Levy of 1899.....	2,258 64
Against the Tax Levy of 1900.....	57,934 60
Total.....	\$ 71,156 63

The following is a tabulated statement of total expenditures for the month of April, 1901:

Account.	Regular Warrants.	Paid by Treasurer.	Total for Month.
Engineering Department.....	\$ 12,102 10	.....	\$ 12,102 10
Construction .....	22,844 84	.....	22,844 84
Clerical Department.....	1,084 99	.....	1,084 99
Law Department.....	2,631 16	.....	2,631 16
Treasury Department.....	429 00	.....	429 00
General Account.....	4,045 49	.....	4,045 49
Police Department.....	1,752 88	.....	1,752 88
Maintenance Account.....	1,184 59	.....	1,184 59
Semi-annual Interest, 1st Issue of Bonds...	80,000 00	.....	80,000 00
Semi-annual Interest, 11th Issue of Bonds..	47,500 00	.....	47,500 00
1899 Tax Warrants redeemed.....	.....	\$ 28,072 24	28,072 24
1900 Tax Warrants redeemed.....	.....	321,274 57	321,274 57
Interest on Tax Warrants redeemed.....	.....	22,987 28	22,987 28
Totals .....	\$128,075 05	\$872,834 09	\$ 495,409 14

Respectfully submitted,

(Signed)

A. R. PORTER, *Clerk.*"

#### MONTHLY REPORT OF THE LAW DEPARTMENT.

The Clerk presented the report of the Law Department for the month of April, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

CHICAGO, May 24, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Law Department for the month of April, 1901.

The following are the expenses and disbursements:

Court costs.....	\$ 60 00
Witness fees.....	5 00
Legal services.....	416 68
Salaries.....	1,976 68
Stationery.....	19 45
General expense (water).....	8 87
Total.....	\$ 2,481 16

The following suits were begun during the month:

The Sanitary District of Chicago vs. Wil-

liam R. Manierre, Cosmopolitan Electric Company et al., Gen. No. 216661, Circuit Court of Cook County. This is a condemnation suit filed for the purpose of acquiring certain dock property adjacent to the Chicago River.

Carl Gelke vs. The Sanitary District of Chicago, Gen. No. 18465, Circuit Court of Will County. This is a personal injury suit for ten thousand dollars damages. The Will County Circuit Court has no jurisdiction in this case, and a plea to that effect will be filed.

The Sanitary District of Chicago vs. The Chicago, Rock Island and Pacific Railway Company, Lake Shore and Michigan Southern Railway Company et al., Gen. No. 217030, Circuit Court of Cook County. This is a petition for the condemnation of certain property along the Chicago River.

The case of John Lussem vs. The Sanitary District of Chicago was argued orally and taken under advisement by the Illinois Supreme Court.

In the case of Werling & Smith vs. Emily G. Ingersoll, the judgment of the Supreme Court of this State was affirmed by

the Supreme Court of the United States. The decision in this case is important in that it finally decides that the State of Illinois is not the owner of the 90-foot strip along the Illinois and Michigan Canal.

In addition to the above numerous contracts, leases and opinions have been prepared, and the regular routine work of the department attended to.

Respectfully submitted,

(Signed)

JAMES TODD,

Attorney.

REPORT RECOMMENDING THE PURCHASE OF PROPERTY ADJOINING THE SOUTH BRANCH OF THE CHICAGO RIVER FROM WILLIAM R. MANIERRE AND JULIA E. MANIERRE.

Mr. Carter, Chairman of the Joint Committee on Finance and Engineering, presented a report from the Committee, as follows:

CHICAGO, May 28, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering herewith reports that the Committee has negotiated with William R. Manierre, for the purchase of the following property, adjoining the South Branch of the Chicago River, described as follows:

That part of Lot 1, Block 34, Canal Trustees, Sub. of the W.  $\frac{1}{4}$  of Section 21, T. 39 N., R. 14 E. of the 3rd P. M., and so much of the S. E.  $\frac{1}{4}$  as lies west of the South Branch of the Chicago River, lying north westerly of the following described line; beginning at a point on the dividing line between Lots 1 and 2 in said Block 34, 159 feet northwesterly of the west line of Canal Street, measured along said dividing line, running thence northeasterly to a point in the northeasterly line of said Lot 1, 61.5 feet northwesterly of the west line of Canal Street, measured along said northeasterly line of said Lot 1, situated in Chicago, Cook County, Illinois.

That your Committee has agreed on behalf of the District to pay for said property the sum of \$1,955.87, and, further, to build or cause to be built, at the expense of said

Sanitary District of Chicago, a dock along the new bank of the remaining portion of said lot fronting on the South Branch of said Chicago River, when the excavation of said above described property has been completed. Said dock to be built in accordance with the present specifications of said Sanitary District of Chicago.

Your Committee recommends that the President and Clerk of the District be authorized and directed to pay, on the voucher of the Attorney, the sum of \$1,955.87, when said William R. Manierre and Julia E. Manierre, his wife, shall have executed and delivered to said Sanitary District of Chicago a good and sufficient warranty deed, conveying to said District the said above described property, free from all incumbrances.

Respectfully submitted,

(Signed)

Z. R. CARTER,

Chairman.

FRANK X. CLOIDT,

WM H. BAKER,

J. C. BRADEN,

THOMAS J. WEBB,

THOMAS A. SMYTH,

FRANK WENTER,

WM. LEGNER,

*Joint Committee on Finance and Engineering.*

On motion of Mr. Carter, seconded by Mr. Wenter, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

REPORT ON COMMUNICATION FROM OSSIAN GUTHRIE IN REFERENCE TO MODELS FOR THE CONSTRUCTION OF CONTROLLING WORKS IN THE CHICAGO RIVER.

Mr. Braden, Chairman of the Committee on Engineering, presented a report from the Committee on Engineering, as follows:

CHICAGO, May 29, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Engineering, to which was referred the commu-

nication of Ossian Guthrie in reference to models for the construction of Controlling Works in the Chicago River, begs leave to report as follows:

By the terms of the advertisement (a copy of which is hereto attached) under which these models were submitted, the Board distinctly reserved the right to reject any and all plans; and, further, that the premium referred to therein was not to be paid until the plans were duly accepted.

The Committee has carefully considered the plans and models as submitted by the said Ossian Guthrie and have taken no action approving the same and, therefore, recommends that the claim of the said Ossian Guthrie be not allowed, and that said communication be placed on file.

Respectfully submitted,

(Signed) JOS. C. BRADEN,

*Chairman.*

WM. H. BAKER,

Z. R. CARTER,

THOMAS J. WEBB,

ALEX. J. JONES,

THOMAS A. SMYTH,

WM. LEGNER,

FRANK WENTER

*Committee on Engineering.*

The following is the advertisement referred to in the report of the Committee on Engineering:

*To Civil and Mechanical Engineers and Persons Skilled in Mechanical and Hydraulic Construction.*

Competitive designs are asked for by the Sanitary District of Chicago to meet the conditions which are described as follows:

The flow of water through the Chicago River into the Main Channel of the Sanitary District is subject to fluctuations due to the oscillating of Lake Michigan. Sudden upward movements of the lake set up rapid currents in the river, which must be subject to regulation. What is desired is some form of construction in the Main Channel of the Sanitary District near to its confluence with the Chicago River which can be easily and quickly operated to control these fluctuations. The cross section of the channel when widened to take the maximum flow of 600,000 cubic feet per minute will be 183.25 feet wide on the bottom at a depth of 24.5 feet below Chicago datum. The side slopes are one foot vertical to two feet

horizontal, giving a width of channel at the datum line of 291.25 feet. The device must be such that it can be so promptly handled as to shut off the flow within a period of thirty minutes and within a like period allow of a restoration of flow to normal conditions. The device must be so strongly constructed as to withstand a head of sixteen feet of water should it ever be desired to shut off the flow and draw off the water below the point of control.

Competitive plans to be addressed to the Board of Trustees of the Sanitary District of Chicago, said Board to pass upon all plans, either personally or by representatives acting under their authority.

A premium of one thousand (\$1,000) dollars will be paid for the plan which meets the approval of the Board.

The right to reject any and all plans is reserved by the Board.

Plans entitled "Plans for controlling the flow through the Chicago Sanitary and Ship Canal," will be received up to 12 o'clock M. of June 30th, 1900, at the office of the Clerk of the District, Room 1110 Security Building, Chicago.

THE SANITARY DISTRICT OF CHICAGO.

By WILLIAM BOLDENWECK,

*President, Board of Trustees.*

Attest:

JOSEPH F. HAAS,

*Clerk.*

Chicago, May 10, 1900.

(One enclosure.)

On motion of Mr. Braden, seconded by Mr. Baker, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

RESOLUTIONS DIRECTING THE CHIEF ENGINEER TO EXCAVATE LANDS DONATED TO THE DISTRICT BY THE CHICAGO, BURLINGTON AND QUINCY RAILROAD COMPANY FOR THE PURPOSE OF WIDENING THE RIVER AND TO CONSTRUCT A DOCK UNDER THE STANDARD SPECIFICATIONS OF THE DISTRICT.

Mr. Braden, seconded by Mr. Cloldt, presented and moved the adoption of the following resolutions:

WHEREAS, The navigation of the Chicago River is being improved by the work being done by the Sanitary District in carrying out the requirements of the

Sanitary District law in relation to flow and volume of supply; and

WHEREAS, There is a projecting point of land situated on the west side of the said river north of the St. Charles Air Line and between the same and the slip on which Elevator F is located, which land is the property of the Chicago, Burlington and Quincy Railroad, and is located on Lot 4, Assessor's Division of Block 14 of Canal Addition of S. W. part of N. E.  $\frac{1}{4}$  of Sec. 21, 39, 14; and

WHEREAS, The proper officer of the said railway company has advised this Board of Trustees of the willingness of the said company in the interest of navigation to permit this District to excavate and remove the said point of land within the lines shown upon a plat submitted by the Chief Engineer of said company, which is herewith transmitted for the information of the Trustees, free of all cost to this District, for the land to be taken other than the cost of dredging the indicated area and building a dock to protect that portion of the remaining property of the railway company which will be exposed by the proposed excavation; therefore, be it

*Resolved*, That the Chief Engineer of this District be, and that he is hereby, ordered to cause the land covered by these resolutions to be excavated and a dock to be constructed under the standard specifications of this District to protect the remainder of the lands of the railway company; and further, be it

*Resolved*, That a copy of these resolutions be transmitted to the General Manager of the Chicago, Burlington and Quincy Railroad Company.

(Three enclosures.)

The roll being called, the resolutions were adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

RESOLUTION DIRECTING THE COMMITTEE ON ENGINEERING TO MAKE INVESTIGATION AND REPORT AS TO THE ADVISABILITY OF REMOVING THE DAMS AT HENRY AND COPPERAS CREEK, ILLINOIS.

Mr. Braden, seconded by Mr. Smyth,

presented and moved the adoption of the following resolution:

WHEREAS, The water flowing from the Channel of the Sanitary District is now being discharged into the Illinois River through the Des Plaines River, and it is therefore necessary to ascertain the effect of such additional supply of water in the river, upon the level of said river, and to consider whether or not the dams at Henry at Copperas Creek so obstruct the flow of said river as to make the removal or modification of the same in any degree necessary; and

WHEREAS, The Supreme Court, in the case of the Canal Commissioners vs. The Sanitary District of Chicago, reported in 184 Illinois, page 597 et seq., has held in substance that the District may remove said dams whenever the condition of the water in said river, occasioned by the flow of water in the Channel of the Sanitary District, makes the removal of said dams necessary or desirable; therefore be it

*Resolved*, That the Engineering Committee of this Board make an official investigation and report to this Board whether or not it is a fact, as represented, that a necessity now exists, by reason of the quantity of water in said river, for the removal of said dams, and report its action in the premises to this Board at the earliest practicable date.

The above resolution was adopted by a unanimous vote.

#### POSTPONEMENT OF OPENING BIDS FOR THE RANDOLPH STREET BRIDGE.

Under the head of new business Mr. Wenter, seconded by Mr. Smyth, moved that the opening of bids for the new bascule bridge across the Chicago River at Randolph Street be postponed to June 12, 1901.

The motion prevailed unanimously and it was so ordered.

#### ADJOURNMENT.

On motion of Mr. Braden, seconded by Mr. Cloldt, the Board adjourned.

A. R. Porter.  
CLERK

May 29,

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PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

JUNE 12, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

The Five Hundred and Thirty-third Regular Meeting of the Board of Trustees of the Sanitary District of Chicago, was held in the Rooms of the Board, Security Building, Wednesday, June 12, 1901, at 2 o'clock, P. M.

The President, Mr. Jones, took the chair,

and the meeting being called to order, there were then

*Present*—Messrs. Baker, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Eight.

*Absent*—Mr. Braden—One.

**MINUTES.**

On motion of Mr. Smyth, seconded by Mr. Cloldt, the minutes of the regular meeting held May 29, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

Lydon & Drews Company (Canal Street Bridge, June 1, 1901).....	\$ 1,046 50
Lydon & Drews Company (Chicago River improvement, June 1, 1901) ..	9,539 68
Lydon & Drews Company (Main Street Bridge) .....	1,715 00
Heldmaier & New (Section 17, June 1, 1901) .....	901 25

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Frank M. Montgomery Company (bridge royalty and plans) .....	\$12,000 00	
Page & Shnable (Ashland Avenue Bridge, June 1, 1901) .....	2,153 38	
Illinois Central Railroad Company (Pan Handle Permanent Bridge, Section O) .....	12 25	
		\$ 27,368 06

## ENGINEERING DEPARTMENT.

Pearson Bros. (blue prints) .....	\$ 29 34	
United States Blue Print Paper Company (blue prints) .....	29 47	
Theodore Buskirk (expense) .....	7 30	
Isham Randolph (expense) .....	224 45	
W. T. Keating (expense) .....	22 31	
W. T. Keating (expense) .....	5 20	
The Gunthorpe-Warren Printing Company (bridge specifications) .....	103 50	
Hibbard, Spencer, Bartlett & Co. (hardware) .....	6 63	
Kenfelf & Esser Company (drafting supplies) .....	96 34	
Eugene Dietzgen Company (drafting supplies) .....	9 94	
R. Seelig (drafting supplies) .....	19 75	
Wm. Trinkaus (expense) .....	10 42	
G. M. Wisner (expense) .....	26 05	
Geo. B. Carpenter Company (supplies, flow measurements) .....	6 40	
S J. Stebbins (hardware) .....	1 03	
Henry Stuckart (hardware) .....	2 80	
R. Walter Smith (electric repairs) .....	2 61	
John F. Decker Company (photo supplies) .....	3 10	
Burke & James (photo supplies) .....	3 41	
Wm. Hofsaes (reel) .....	5 75	
J. Mandelbaum (expressing) .....	5 50	
A. P. Little (typewriting supplies) .....	2 25	
Al. Goetzinger (coal, Archer avenue office) .....	2 20	
J. W. Landis (lumber) .....	22 50	
The Consumers Company (water) .....	4 50	
The American Water Company (water) .....	6 76	
P. F. Pettibone & Co. (stationery) .....	52 93	
Emil Rudolph (professional services) .....	275 00	
		\$ 987 44

## LAW DEPARTMENT.

John W. Nadelhoffer (expense) .....	\$ 68 60	
Russell P. Butler & Co. (court expense) .....	47 00	
F. S. Webster Co. (typewriting ribbons) .....	9 00	
		\$ 124 60

## POLICE DEPARTMENT.

John M. Smyth Company (furniture, Police Department, Lockport) .....	\$ 87 50	
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## GENERAL ACCOUNT.

Isham Randolph (telephone system) .....	\$ 36 00	
Youghiogheny & Lehigh Coal Company (coal, Steamer Juliet) .....	47 40	
Marshall Field & Company (towelings, Steamer Juliet) .....	11 60	
John M. Smyth Company (bedding, Steamer Juliet) .....	77 04	
Thos. M. Sullivan (groceries and provisions, Steamer Juliet) .....	66 93	
Chicagoer Freie Presse (advertising) .....	23 75	
The Inter Ocean Publishing Company (advertising) .....	4 20	
The Tribune Company (advertising) .....	23 70	
The Tribune Company (advertising) .....	24 00	



Western Union Telegraph Company (telephone system).....	\$ 56 50	
Chicago Telephone Company (toll service) .....	49 55	
John F. Higgins (printing proceedings) .....	95 53	
Security Building Receivership (rent of offices June, 1901).....	458 88	
	<u>974 53</u>	

## MAINTENANCE ACCOUNT.

W. T. Keating (expense).....	\$ 18 08	
Isham Randolph (expense Bridgeport Pumping Works).....	92 00	
Marshall Field & Co. (towelings, Controlling Works).....	2 60	
Crerar, Adams & Co. (supplies, Controlling Works).....	4 75	
Thos. F. Ryan (coal, Controlling Works) .....	7 18	
Mrs. Thos. O'Brien (teamings, Controlling Works).....	9 88	
Hibbard, Spencer, Bartlett & Co. (hardware, Controlling Works).....	5 81	
A. L. Gaines & Sons (window shades, Controlling Works).....	11 06	
Quaker City Rubber Company (packing, Bridgeport Pumping Works)	16 18	
M. H. Fairchild & Bro. (soap powder, Bridgeport Pumping Works)...	8 88	
Chicago Engineer's Supply Company (supplies, Bridgeport Pumping Works).....	8 40	
City of Chicago (repairs Bridgeport Pumping Works .....	18 20	
Crane Company (repairs, Bridgeport Pumping Works).....	1 21	
Western Valve Company (supplies, Bridgeport Pumping Works).....	3 08	
W. J. Freckleton (coal, Bridgeport Pumping Works).....	1,988 97	
John Spry Lumber Company (lumber, Bridgeport Pumping Works)...	111 64	
Franklin MacVeagh & Co. (supplies, Bridgeport Pumping Works) ...	14 20	
Hibbard, Spencer, Bartlett & Co. (hardware, Bridgeport Pumping Works).....	21 55	
Crow Levick Company (oil, Bridgeport Pumping Works).....	80 23	
A. J. Dunbar (hardware, Bridgeport Pumping Works).....	5 68	
Acorn Brass Works (supplies, Bridgeport Pumping Works).....	4 80	
	<u>2,878 76</u>	

## DOCK AND LAND IMPROVEMENT AND RENTAL ACCOUNT.

Crerar, Adams & Co. (hardware, spur track Sec. K).....	\$ 57 00	
M. H. McGovern & Co. (grading road bed, Sec. K).....	876 57	
	<u>933 57</u>	
Grand total.....	<u>\$ 32,854 45</u>	

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Carter, Oloidt, Jones (except as to voucher in favor of M. H. McGovern & Co., for grading roadbed on Section "K," on which Mr. Jones was excused from voting), Legner, Webb and Wenter—Seven.

*Nays*—None.

Excused and not voting, Mr. Smyth—One.

## CLERK'S REPORT IN REFERENCE TO SALE OF SUMMIT POLICE STATION.

The Clerk of the District presented the following report in reference to the sale of the police station, located at Summit, Ill.:

CHICAGO, June 8, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In compliance with the action of the Committee on Finance, on May 27th, 1901, I beg leave to report to your Honorable Body that I have sold the police station situated at Summit, Illinois, together with the iron cage contained

therein, to Mr. John D. Welsh, of Summit, Illinois, for the sum of one hundred dollars, which amount has been turned over to the Treasurer of the District.

Respectfully submitted,

A. R. PORTER,  
*Clerk.*

(One enclosure.)

By unanimous consent the above report was ordered printed and placed on file.

#### MONTHLY REPORT OF THE LAW DEPARTMENT.

The Clerk presented the report of the Law Department for the month of May, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

CHICAGO, June 11, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith submit the report of the Law Department for the month of May, 1901.

The following are the expenses and disbursements:

Court Expenses.....	\$ 178 18
Attorney's Roll.....	1,976 68
Printing .....	74 25
General Expenses.....	271 11
Total .....	\$3,328 50

The following suit was begun during the month:

Franklin Transit Co., E. R. Perkins, Executor of the Estate of John Huntington, deceased, et al. vs. The Sanitary District of Chicago, No. 9854, in the District Court of the United States. This is an admiralty suit for damages to the Steamer "Amazon", for \$3,677.75, caused by the Sanitary District of Chicago obstructing the South

Branch of the Chicago River at the Chicago Terminal Transfer Railroad Company's bridge.

The case of the People of the State of Illinois vs. Sanitary District of Chicago, No. 25850, in the Circuit Court of the United States, was a bill to enjoin the Sanitary District from operating the Main Channel so as to interrupt the flow in the summit level of the Illinois and Michigan Canal, and for lowering the water in the South Branch of the Chicago River. This case was dismissed on general call by Judge Kohlsaat.

In the case of McArthur Bros. vs. The Sanitary District, in the Superior Court of Cook County, Judge Ball sustained the demurrer of the defendant to the eighth, ninth and tenth counts of plaintiff's declaration.

In the case of the Carnegie Steel Company, Limited, vs. The Sanitary District of Chicago, in the Circuit Court of the United States, a verdict was rendered in favor of the plaintiff for \$25,368 41, before Judge Kohlsaat. The trial of this suit saved the District \$5,400, which the jury allowed as damages for delay in the construction of bridges, and also interest on \$30,764 41 for over three years. A motion for a new trial was entered by the defendant, but was subsequently withdrawn and judgment entered and satisfied in full.

The case of the Sanitary District of Chicago vs. Manierre, et al., No. 216661, in the Circuit Court of Cook County, was dismissed on motion of the petitioner, the property involved having been secured by purchase.

In addition to the above, a large amount of time has been devoted by this department to the examination of abstracts of title to the property adjacent to the Chicago River, and to the preparation of petitions for condemnation.

Respectfully submitted,

JAMES TODD,  
*Attorney.*

#### MONTHLY REPORT OF THE TREASURY DEPARTMENT.

The Clerk presented the report of the Treasury Department for the month of May, 1901, which, by unanimous consent, was ordered printed and placed on file.

## The following is the report:

## SANITARY DISTRICT OF CHICAGO.

## Treasurer's Report for May, 1901.

*Receipts.*

Balance on hand at date of last report.....	\$ 1,504,708 64
From County Treasurer, Sanitary District Tax Account.....	\$ 125,000 00
From Chicago National Bank, Interest Account .....	1,545 48
From Equitable Trust Company, Interest Account .....	424 66
From Home Savings Bank, Interest Account .....	839 72
Total cash received for month.....	127,309 80
	<u>\$ 1,632,018 44</u>

*Disbursements.*

Clerical Department.....	\$ 2,061 44
Treasury Department.....	499 00
Engineering Department.....	17,780 86
Construction Account.....	54,321 96
Law Department.....	4,487 52
Land Account.....	2,569 82
General Account .....	7,354 72
Bond Interest and Premium Account.....	30,000 00
Police Department.....	3,527 04
Maintenance Account.....	4,225 14
Tax Warrants Paid—Levy 1900.....	23,545 59
Interest Paid on Tax Warrants—Levy 1900.....	2,226 18
Total cash disbursed.....	\$ 162,379 22
Balance this date in banks, as per schedule endorsed hereon.....	1,469,639 22
	<u>\$ 1,632,018 44</u>

*Schedule.*

Chicago National Bank .....	\$ 998,461 43
Equitable Trust Company.....	250,000 00
Home Savings Bank .....	200,000 00
Illinois Trust and Savings Bank .....	229 01
National Bank of Illinois.....	25,938 78
Total.....	<u>\$ 1,469,639 22</u>

CHICAGO, June 10, 1901.

F. M. BLOUNT, *Treasurer.*By S. P. BLOUNT, *Assistant Treasurer.*

REPORT IN REFERENCE TO REDUCTION OF SURETY BOND OF THE LYDON & DREWS COMPANY ON CONTRACT FOR DREDGING IN THE SOUTH BRANCH OF THE CHICAGO RIVER AND RELEASE OF SURETY BOND OF THE CARNEGIE STEEL COMPANY, LIMITED, ON CONTRACT FOR SUPERSTRUCTURE OF THE A., T. & S. F. R. R. BRIDGE, ON SECTION "G".

Mr. Carter, Chairman of the Committee

on Finance, presented a report of the Committee, as follows:

CHICAGO, June 12, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Finance herewith reports a communication from the City Trust, Safe Deposit and Surety Company of Philadelphia, requesting the release of certain bonds, among

which is one given by Lydon and Drews Company, dated May 28th, 1897, in the sum of \$25,000, for the dredging of the Chicago River between its mouth and the West Fork in the South Branch of said river, between the junction of the South Branch with the West Fork and Robey Street, in said West Fork; also, a bond given by the Carnegie Steel Company, Ltd., dated May 18th, 1899, in the sum of \$2,000, being a bond given in lieu of its original bond on the contract for the construction of the superstructure of the Atchison, Topeka and Santa Fe Railroad Company's bridge, crossing the Main Channel at Section "G."

The Committee advises that they have carefully considered the subject matter of said request, and recommends as follows:

That the surety on the bond of Lydon and Drews Company, referred to above, be released from further liability thereon (the contractor, however, to remain liable thereon) when said company shall have furnished a new bond in lieu of said original bond, in the penal sum of \$2,000, with surety thereon acceptable to the Committee on Finance. Said bond to remain in force for two years after the date of the filing of the final certificate.

That the bond given by the Carnegie Steel Company, Ltd., as stated above, be released, and that the surety thereon be discharged.

Respectfully submitted,

(Signed) Z. R. CARTER,  
*Chairman.*

WM. H. BAKER,  
A. J. JONES,  
THOMAS J. WEBB,  
T. A. SMYTH,  
FRANK X. CLOIDT,  
WM. LEGNER,  
FRANK WENTER,

*Committee on Finance.*

On motion of Mr. Carter, seconded by Mr. Wenter, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

# REPORT IN REFERENCE TO ESTABLISHING PERMANENT DOCK LINES AS RECOMMENDED BY THE CHIEF ENGINEER OF THE DISTRICT.

Mr. Smyth, member of the Committee on Engineering, presented a report of the Committee as follows:

CHICAGO, June 11, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering respectfully reports that on June 10th your Chief Engineer submitted a cross section, showing the Channel as now excavated, extending west from Robey Street, and indicating the additional excavation to be made to conform to the plans heretofore adopted by the District.

In view of the fact that the property lying east of Western Avenue is about to be utilized for commercial purposes, as leases can be made greatly to the advantage of the District, the Chief Engineer recommended that a dock line be established, as indicated on the aforesaid cross section, giving a total width of 240 feet, which will be sufficient for the passage of the maximum supply of 600,000 cubic feet of water per minute required by the Sanitary District Law.

Recognizing the importance of determining these lines prior to leasing the property, we recommend that the lines suggested by the Chief Engineer be adopted as the permanent dock lines on that portion of the Channel lying east of the range line near Summit; and we further recommend that the Chief Engineer be instructed to establish these lines and place permanent monuments thereon, besides placing cedar posts distinctly marked, which can be seen by anyone desiring to ascertain the location of the dock line.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,  
WM. H. BAKER,  
THOMAS J. WEBB,  
Z. R. CARTER,  
FRANK X. CLOIDT,  
WM. LEGNER,

*Committee on Engineering.*

(Two enclosures.)

On motion of Mr. Smyth, seconded by Mr. Cloidt, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Carter, Cloidt, Legner, Smith and Webb—Six.

*Nays*—Mr. Wenter—One.

Excused and not voting—Mr. Jones—One.

COMMUNICATION FROM THE WESTERN DREDGING AND IMPROVEMENT COMPANY, CONTRACTORS FOR SECTION "C" OF THE MAIN CHANNEL, REQUESTING RELEASE OF CERTAIN MONEYS RETAINED BY THE DISTRICT.

The Clerk presented the following communication from the Western Dredging and Improvement Company, by John M. Duffy, its attorney:

CHICAGO, June 12, 1901.

*To the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On the 14th day of December, 1898, (on page 5823 of the proceedings) by agreement of the undersigned and James O. Wright and under stipulation and notice of lien filed with you by said Wright, you retained from moneys belonging to the undersigned seven thousand five hundred (\$7,500.00) dollars which was to be invested in accordance with the agreement of the undersigned and said Wright and retained by the Clerk of this District until a settlement of the pending litigation was reached. An agreement has now been arrived at between the undersigned company and said Wright, providing for the payment to said Wright of two thousand five hundred (\$2,500.00) dollars out of the moneys in your hands belonging to the undersigned, and providing also for the release of the lien or claim for lien, which said Wright has on all moneys now in your hands, and providing also for the dismissal of the two pending suits against said company, instituted by said Wright.

The undersigned respectfully asks your Honorable Body to order and direct the Clerk to release and pay over to the undersigned the said fund of seven thousand five hundred (\$7,500.00) dollars, or the proceeds thereof as reinvested, upon the filing with said Clerk of a release of all claims thereon by said Wright and stipulations

providing for the dismissal of said suits, and the release of the District and the undersigned from any liability thereunder to said Wright.

Respectfully submitted,

WESTERN DREDGING AND IMPROVEMENT COMPANY.

By JOHN M. DUFFY,

*Its Attorney.*

Mr. Smyth, seconded by Mr. Legner, moved that the Sanitary District pay over to the Western Dredging and Improvement Company the sum of \$7,500.00 due said company on its contract for Section "C," upon the filing of a certificate by the Attorney of the District that the interests of the Sanitary District in the matter will be fully protected if such payment be made.

The roll being called, the motion was adopted by the following vote:

*Yeas*—Messrs. Baker, Carter, Cloidt, Jones, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

COMMUNICATION FROM THE HALL BASCULE BRIDGE COMPANY, WITHDRAWING OFFER TO FURNISH PLANS FOR THE HARRISON STREET BRIDGE WITHOUT PAYMENT OF ROYALTY.

The Clerk presented the following communication from the Hall Bascule Bridge Company:

CHICAGO, June 1st, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—We herewith withdraw our offer to furnish detailed plans for the construction of bascule bridge of the improved Hall type, to be located across the Chicago River at Harrison street, in the City of Chicago, the said plans to have been furnished for the sum of three thousand dollars.

We further withdraw our offer to allow your Honorable Body the use of the said plans, so furnished for the construction of the said bridge, without the payment of any royalty therefor.

Very respectfully yours,

HALL BASCULE BRIDGE CO.

By unanimous consent the communication was ordered printed and placed on file.

#### NOTICE OF SPECIAL TAX.

The Clerk presented a special tax notice from W. W. Gifford, County Treasurer and Ex-Officio Collector of Will County, Illinois, being on property in the Original Town of Joliet, William Adams' Subdivision, Lots 3 and 4, Block 10, in Sub-Lots 1, 2, 3 and 4, amounting to \$4 86.

By unanimous consent the same was referred to the Committee on Finance.

#### PRESENTATION OF BIDS FOR SUB AND SUPERSTRUCTURES OF BRIDGE CROSSING THE CHICAGO RIVER AT RANDOLPH STREET.

The President announced that, in conformity with the advertisement inviting

proposals for sub and superstructures of bridge crossing the Chicago River at Randolph Street, in the City of Chicago, duly published, giving sixty (60) days' notice, as required by the Sanitary District Act, and in accordance with the published notice of postponement of same to June 12, 1901, the Board would now proceed to open the bids received by the Clerk in response to said advertisement.

The Clerk then proceeded to open the bids in the order as shown hereafter.

At the conclusion of the reading of the bids, Mr. Smyth, seconded by Mr. Baker, moved that the bids received be compiled, summarized and tabulated by the Chief Engineer and referred to the Committee on Engineering.

The motion prevailed unanimously, and it was so ordered.

The following is a schedule of the bids received:

#### SCHEDULE OF BIDS FOR SUPERSTRUCTURE OF RANDOLPH STREET BRIDGE.

*Bids Opened June 12, 1901.*

No. of Bid as Received.	NAME AND ADDRESS OF BIDDER.	Amount Deposited with Bid.
1	The King Bridge Company, Cleveland, Ohio.....	\$ 3,000 00
2	American Bridge Company, New York City.....	3 000 00

#### SCHEDULE OF BIDS FOR SUBSTRUCTURE FOR RANDOLPH STREET BRIDGE

*Bids Opened June 12, 1901.*

No. of Bid as Received.	NAME AND ADDRESS OF BIDDER.	Amount Deposited with Bid.
1	Lydon & Drews Co., Chicago.....	\$ 2,000 00
2	Morrison, La Bounty & Co., Chicago.....	2 000 00
3	Jackson & Corbett Co., Chicago.....	2 000 00
4	The Fitz Simons & Connell Co., Chicago.....	2,000 00

THE BIDS IN DETAIL FOR SUPERSTRUCTURE OF LIFT BRIDGE ACROSS THE CHICAGO RIVER AT RANDOLPH STREET  
IN THE CITY OF CHICAGO.

In Order of Magnitude—Lowest Bid First—Opened June 12, 1901.

No. of Bid	Order of Magnitude	NAME OF BIDDER.										
			a—	b—	c—	d—	e—	f—	g—	h—	i—	Total Extra Cost for Weight Pit Linings, Furnishing Counter
2	1	American Bridge Co., of New York.....	Lump Sum for Superstructure and Substructure Metal as Specified	For Furnishing Pit Linings	For Extra Medium Soft Steel	For Extra Iron Castings	For Extra Cast Steel Trunk Plates	For Extra-Steel and Machinery Cast- ings	For Extra Phosphor Bronze	For Extra Counter Weight Block Castings	For Extra Yellow Pine or Oak, per 1,000 ft. B. M.	\$5,030 00
1	2	The King Bridge Co., Cleveland, Ohio.....	112,500 00	5 8-10	4 4-10	4 55-100	6 92-100	6 92-100	.40	1 72-100	34 00	7,446 50

TY O

Pit  
Lbs.

Total.

058 75

405 00

702 50

405 00

m  
W

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CITY OF CHICAGO.

Pit rs. Lbs.	-1- Substructure Metal. 273,820 Lbs.		-m- Removal Present Superstructure. Lump Sum of	-n- Removal Sub- structure. Lump Sum of	-o- Sewers, Etc., Lump Sum of	-p- Dredging Chan- nel and Re- moving Matter. 3,000 C. Y.		Total.
	Total.	Price per Lb.				Price per C. Y.	Total.	
1,053 75	\$ 0 00%	\$ 1,369 10	\$ 2,900 00	\$ 2,600 00	\$ 1,800 00	\$ 0 65	\$ 1,950 00	\$81,628 34
1,405 00	01	2,738 30	750 00	4,850 00	900 00	18	540 00	83,717 00
702 50	00%	1,369 10	6,000 00	10,000 00	2,000 00	27	810 00	94,112 40
1,405 00	00%	2,063 65	3,000 00	6,000 00	2,500 00	28	840 00	103,579 05

ADJOURNMENT.

Mr. Baker, seconded by Mr. Wenter, moved that the Board now adjourn to meet Wednesday, June 19, 1901, at 2 o'clock P.M.

The motion prevailed unanimously, and it was so ordered.

The Board thereupon adjourned.

*A. R. Porter,*  
CLERK

TY OF

Pit  
es.  
Lbs.

Total.

1,053 75

1,405 00

702 54

1,405 01

CITY OF CHICAGO.

Pit rs. Lbs.	-l- Substructure Metal. 273,320 Lbs.		-m- Removal Present Superstructure. Lump Sum of	-n- Removal Sub- structure. Lump Sum of	-o- Sewers, Etc., Lump Sum of	-p- Dredging Chan- nel and Re- moving Matter. 3,000 C. Y.		Total.
	Total.	Price per Lb.				Price per C. Y.	Total.	
1,053 75	\$ 0 00%	\$ 1,369 10	\$ 2,300 00	\$ 2,600 00	\$ 1,300 00	\$ 0 65	\$ 1,950 00	\$81,628 34
1,405 00	01	2,788 20	750 00	4,850 00	900 00	18	540 00	88,717 00
702 50	00%	1,369 10	6,000 00	10,000 00	2,000 00	27	810 00	94,112 40
1,405 00	00%	2,053 65	3,000 00	6,000 00	2,500 00	28	840 00	108,579 05

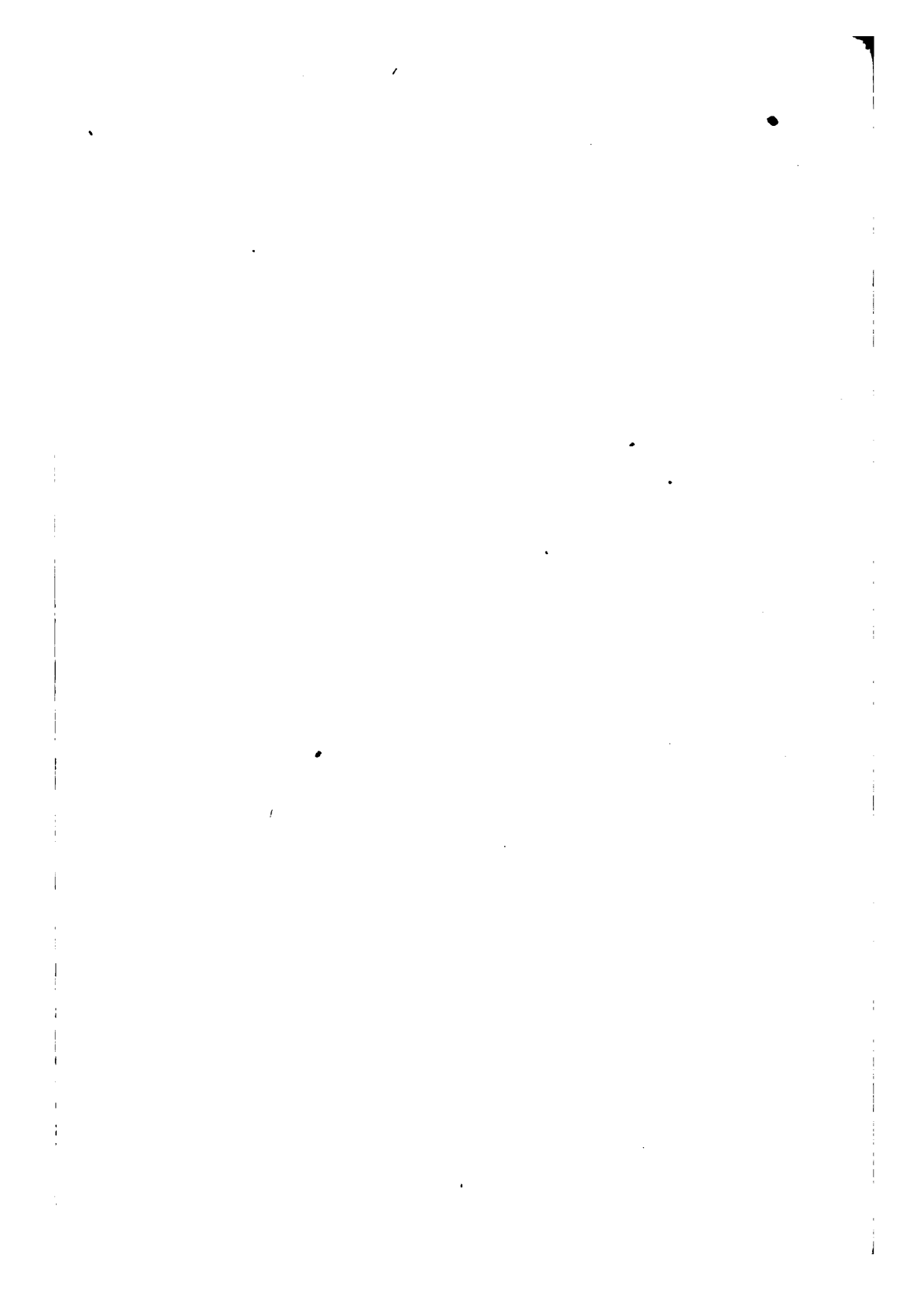
ADJOURNMENT.

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The motion prevailed unanimously, and it was so ordered.

The Board thereupon adjourned.

*A. R. Porter,*  
CLERK



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

JUNE 19, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**ADJOURNED MEETING.**

The Adjourned Session of the Five Hundred and Thirty-third Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Wednesday, June 19, 1901, at 2 o'clock P. M., pursuant to motion.

The President, Mr. Jones, took the chair, and the meeting being called to order, there were then

*Present*—Messrs. Baker, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Eight members.

*Absent*—Mr. Braden—One.

**MINUTES.**

On motion of Mr. Cloldt, seconded by

Mr. Smyth, the minutes of the regular meeting held June 12, 1901, were approved as printed.

**MONTHLY REPORT OF THE ENGINEERING  
DEPARTMENT.**

The Clerk presented the report of the Engineering Department for the month of May, 1901, which, by unanimous consent, was ordered printed in the proceedings and placed on file.

The following is the report:

CHICAGO, June 15, 1901.

*To the Honorable, the Board of Trustees of  
the Sanitary District of Chicago:*

GENTLEMEN—I herewith present the report of the Engineering Department for the month of May, 1901, giving the detailed operations of same.

The value of construction work done

was \$39,330.26. Vouchers were issued on this account to the amount of \$36,245.61.

The engineering expenses for the month were \$9,912.01, divided as follows: Salaries, \$6,489.01; supplies, etc., \$3,473.00. The expenses of the Bridgeport Pumping Works were \$4,478.45, divided as follows: Salaries, \$1,594.75; supplies, \$2,883.70. Details of the above figures are given in tabulated statements submitted herewith.

*Chicago River*.—The contractor for the widening and deepening of the river completed the excavation of the strip of land between Eighteenth Street and Stewart Avenue. The river from the Twenty-second Street Bridge to a distance 600 feet west was deepened to about 28 feet below datum and 50 feet in width. The channel was also dredged to this depth from 200 feet above to 200 feet below the bridge, at Halsted Street. The work of widening the river west of Main Street on the north side of the river was completed with the exception of driving the sheeting for the dock.

The contractor for the rock excavation in the South Fork commenced work on the 17th, and at the end of the month had 70 feet of the channel drilled and blasted, but no material was actually removed.

The contractors for the C. T. T. R. R. Co.'s Bridge resumed the erection of the west side of the superstructure on the 8th. Riveting on the east side was practically completed on the 9th, and painting of same was begun on the 18th. On the 28th the erection of the movable span on the west side was completed.

Some excavation was done by the contractor for the substructure of the Canal Street Bridge during the month.

The contractor for the substructure of the Main Street Bridge removed all of the old structure and about 3,000 cubic yards of excavation. The work of driving piles in the south cofferdam was begun on the 24th. At this bridge a tunnel runs under the river and the construction of the north abutment requires the building of a new shaft and the extension of a tunnel for a distance of about 55 feet and also the removal of a 36-inch water valve about 100 feet to the north. A force of city employees put in this valve from the 18th to the 23d and the water was shut off on the 25th. The contractor began work on the

new shaft on the 24th and had about 16 feet of the work completed at the end of the month.

The contractors for the substructure of the Ashland Avenue Bridge finished the south concrete piers on the 11th. On the same date the work of excavation for the south abutment was begun and was about completed at the end of the month. On the 30th the work of putting in concrete for this abutment was begun.

*Section "O"*.—The work of painting the eight-track bridge was completed on the 10th. The three railroad companies in interest at this bridge were occupied a portion of the month ballasting their tracks and making changes in crossings incident to the occupation of the bridge. A force of bridge men were also employed during a portion of the month putting raising strips under tracks on the channel spans. This work was done on demand of the railroad companies.

The work of removing the Pan Handle temporary bridges was begun on the 6th and continued to the end of the month. About one third of the work was completed.

*Section "K"*.—The contractor for the excavation of the spoil bank for a switch track finished his work before the end of the month. The laying of the steel was delayed, owing to difficulty in getting ties.

*Section 17*.—The dredge worked in the basin between Dam No. 1 and Ruby street, from the 1st to the 13th, when operations were stopped, owing to the breaking of the unloading derrick. Work was resumed on the 25th, and continued to the end of the month. The plant consisted of one dredge, one tug, three scows and one steam derrick.

*Bridgeport Pumping Works*.—Engines Nos. 1 and 4 were operated during the whole month, keeping the water up to +2.5. A daily average of 27 to 28 tons of coal was consumed.

In the Drafting Department the following drawings, etc., were made:

Plan showing proposed change of location of Iowa Elevator and adjacent railroad tracks along the Chicago River; testimonials for ex-Trustees Boldenweck, Eckhart, Kelly and Mallette; cross-section of

the Iowa Elevator; cross-sections Upper Basin, Illinois and Michigan Canal; plan showing areas reserved for tow path along South Branch of Chicago River, and a plat showing the Sanitary District right of way, between Western Avenue and Robey Street.

The checking of the plans for the Randolph Street Bridge was completed. In the plans for the Harrison Street Bridge, some changes have been made in order to conform with present standards. The plans for the Eighteenth Street Bridge were received from the Frank M. Montgomery

Company and the work of checking same was begun.

Besides the work reported above, the engineering corps were engaged, principally, in the taking of flow measurements, in Chicago River surveys, and in computing finals for Section 17.

I estimate that the expenses of this Department for June will be \$50,000.00.

Respectfully submitted,

(Signed)

ISHAM RANDOLPH,

Chief Engineer.

# SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—QUANTITIES.

*Amount Done During May, 1901.*

DESIGNATION.	Glacial Drift.	Solid Rock.	Masonry and Concrete.
Chicago River, dredging, etc.....	44,500		
Section 17.....	8,200	1,400	
Canal Street Bridge, Chicago River.....	2,300		
Main Street Bridge, Chicago River.....	3,000		
Ashland Avenue Bridge, Chicago River.....	2,600		330
Total.....	60,600	1,400	330

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—VALUES.  
Amount Earned During May, 1901.

DESIGNATION.	CHICAGO RIVER		MAIN CHANNEL.			Joliet Project.	Totals.
	Dredging, Docking, Etc.	Permanent Bridges.	Excavation, etc.	Temporary Bridges.	Permanent Bridges.	Controlling Works.	
Chicago River, dredging, docking, etc. Section O.....	\$10,902 50			\$ 591 45			\$ 10,902 50
Controlling Works.....							591 45
Section 17.....						\$ 107 09	107 09
Canal Street Bridge, Chicago River.....		\$ 1,186 00					3,997 00
Main Street Bridge, Chicago River.....		1,960 00					1,186 00
Ashland Avenue Bridge, Chicago River.....		6,021 60					1,960 00
Eight-track Bridge, Section O.....					\$ 284 46		6,021 60
The A. T. & S. F. Ry. Co.'s Bridge, Main Channel, Section 8.....					13,008 76		284 46
Romeo Road Bridge, Main Channel, Section 12.....					6 15		13,008 76
Life-saving apparatus along rock sections.....			\$ 5 25				6 15
Totals.....	\$10,902 50	\$ 9,777 60	\$ 5 25	\$ 591 45	\$13,949 37	\$ 107 09	\$ 59,830 26



SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.  
CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF MAY, 1901.

CLASSIFICATION.	ENGINEERING EXPENSES			Construc- tion.	BRIDGEPORT PUMPS	
	Salaries.	Supplies, Etc.	Totals.		Salaries.	Supplies, Etc.
Maps and Plans for General Use.....	\$ 115 20	\$ 5 95	\$ 121 15	.....	.....	.....
Chicago River Surveys.....	3 80	3 80	3 80	.....	.....	.....
Right of Way.....	32 70	3 90	36 60	.....	.....	.....
Hydraulic Measurements.....	663 23	465 90	1,520 03	.....	.....	.....
Mortar, Sand and Cement Tests.....	248 75	.....	248 75	.....	.....	.....
Photographs of Works.....	25 00	164 53	189 53	.....	.....	.....
Expert Commission.....	158 50	290 85	449 35	.....	.....	.....
Chicago River, Dredging, Docking, etc.....	1,678 80	1,045 39	2,723 69	\$ 9,530 08	.....	.....
State Street Bridge, Chicago River.....	125 00	127 48	252 48	.....	.....	.....
Randolph Street Bridge, Chicago River.....	71 50	1 31	71 50	.....	.....	.....
Harrison Street Bridge, Chicago River.....	.....	1 31	1 31	.....	.....	.....
Polk Street Bridge, Chicago River.....	313 75	107 30	421 05	.....	.....	.....
C. T. R. R. Co.'s Bridge, Chicago River.....	65 00	.....	65 00	.....	.....	.....
Eighteenth Street Bridge, Chicago River.....	247 71	98 05	345 76	1,046 50	.....	.....
Canal Street Bridge, Chicago River.....	465 58	88 96	554 54	1,715 00	.....	.....
Abland Avenue Bridge, Chicago River.....	600 21	82 13	682 34	5,738 90	.....	.....
Main Street Bridge, Chicago River.....	515 25	106 56	621 81	.....	.....	.....
Main Channel and River Diversion, etc.....	80 00	1 00	81 00	591 45	.....	.....
Main Channel, Section O.....	270 00	240 50	510 50	294 46	.....	.....
Panhandle Temporary Bridges, Main Channel, Section O.....	100 00	.....	100 00	13,658 76	.....	.....
Panhandle Permanent Bridge, Main Channel, Section O.....	.....	.....	.....	6 15	.....	.....
Romeo Road Permanent Bridge, Main Channel, Section 8.....	663 33	235 94	899 27	3,604 46	.....	.....
Disposal Works and Jetty Project.....	.....	.....	.....	5 25	.....	.....
Life Saving Apparatus along rock sections Main Channel.....	.....	.....	.....	.....	\$1,594 75	\$1,888 70
Bridgeport Pumping Works.....	.....	.....	.....	.....	.....	.....
Totals.....	\$6,439 01	\$8,473 00	\$ 9,912 01	\$36,240 61	\$1,594 75	\$1,888 70
						\$ 4,478 45

# ANNUAL PROPERTY RETURN OF THE ENGINEERING DEPARTMENT.

The Clerk presented a communication from Chief Engineer Isham Randolph, transmitting the annual property return of the Engineering Department for the year ending December 31, 1900.

By unanimous consent, the same was ordered printed and placed on file.

CHICAGO, June 18, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—I herewith transmit the property return of the Engineering Department for the year ending December 31, 1900.

Respectfully submitted,

ISHAM RANDOLPH,  
*Chief Engineer.*

## SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.

*Property return for year ending December 31, 1901.*

Articles.	Amount.
Anchors.....	2
Anvils.....	2
Augers, all kinds.....	9
Axes, chopping.....	8
Axes, hand.....	9
Axes, pick.....	14
Axes, pick stone bull.....	2
Bags, cloth all kinds.....	2
Barrrows, wheel, all kinds.....	37
Bars, claw.....	4
Bars, crow.....	11
Bars, Jack.....	3
Bars, pinch ..	3
Basins, wash.....	7
Baskets, letter.....	11
Baskets, waste.....	33
Baths, blotter.....	7
Batteries, electric.....	1
Bellows, (pair).....	1
Belting, 12-inch rubber (feet).....	50
Belts, rubber driving.....	8
Benches, work.....	2
Bits and Braces (sets).....	2
Blocks, pulley, all kinds.....	13
Boards, drawing.....	3
Boards, water guage.....	9
Boats, row.....	10
Boats, sail.....	1
Boilers, steam tubular.....	3
Boilers, steam upright.....	2
Boilers, wash.....	1
Bolts, all sizes (lots).....	1
Books, calculation.....	1

Articles.	Amount.
Boots, rubber (pairs).....	6
Boxes, document.....	9
Boxes, loc.....	1
Boxes, skp with chains.....	4
Boxes, tin cash.....	9
Boxes, tin letter.....	2
Boxes, tool.....	6
Brooms, all kinds.....	4
Brushes, steel.....	5
Cable (lots).....	1
Callipers.....	2
Cans, ash.....	2
Cans, oil, all kinds.....	16
Canteens.....	5
Cases, book.....	4
Cases, cement.....	29
Cases, drawing.....	5
Cases, filing index.....	6
Cases, map.....	12
Cases, portable stationery .....	7
Cases, type.....	2
Cases, typewriter cabinet.....	1
Cement bags, empty.....	720
Cement, natural (bags).....	346
Cement, Portland (bags).....	160
Chains, surveyor's.....	5
Chairs, all kinds.....	107
Chisels, all kinds.....	33
Clamps, lineman's.....	4
Clinometer.....	1
Clips, paper.....	32
Clocks.....	3
Compass, beam.....	1
Covers, instrument.....	4
Cups, sponge.....	22
Curves, irregular and R. R.....	4
Cuspidors.....	40
Cutters, pipe.....	1
Deadmen for telephone work.....	1
Derricks, stiflepped.....	4
Desks, roll top.....	14
Desks, all other kinds.....	21
Diggers, post hole.....	1
Dippers.....	2
Dishes, soap.....	2
Dividers.....	1
Drills, all kinds.....	29
Drivers, screw.....	5
Dusters, feather.....	5
Dynamos for blasting.....	1
Engines, steam, Russell Compound.....	1
Engines, steam, Standard & Houston.....	2
Erasers, steel.....	17
Faucets.....	1
Files, board.....	3
Files, book.....	2
Files, box letter.....	33
Files, spindle.....	7
Files, steel.....	14
Filters, oil.....	1
Fittings, vault (lots).....	1
Flags.....	2
Flies, tent canvas.....	1

Articles.	Amount.	Articles.	Amount.
Floats, all kinds (lots).....	1	Marlin spikes.....	1
Forges.....	1	Mats, door.....	6
Forks, pitch.....	2	Mattocks.....	6
Forks, raising, for telegraph poles.....	3	Measures (set).....	1
Funnels.....	8	Nets, minnow.....	1
Gauges, steam.....	4	Oars (pairs).....	10
Gauges, vacuum.....	1	Overalls (pairs).....	1
Girders, bridge, 80-ft.....	3	Padlocks.....	4
Glasses, drinking.....	17	Pads, desk.....	1
Glasses, field.....	5	Pads, rubber stamp.....	10
Glasses, reading.....	2	Pails, all kinds.....	16
Glasses, setting, for cement, (doz).....	1	Pans, all kinds (dust & granite ware 15, iron 54) 73	
Gloves, rubber, (pairs).....	1	Pantograph.....	1
Graduates, metric.....	2	Patterns and models (lots).....	1
Hammers, all kinds.....	33	Photographer's outfit.....	1
Hatchets.....	4	Pins, steel frost.....	1
Hoes.....	3	Pins, tally (sets).....	8
Hooks, brush.....	4	Pipe, all kinds (lots).....	1
Hooks, carrying.....	9	Plans.....	1
Hooks, lift.....	4	Planimeters.....	1
Hooks, lumber lug.....	6	Pliers.....	3
Hooks, stone grab, (sets).....	2	Plumb bobs.....	10
Horses, saw.....	4	Poles, pike.....	3
Hose, all kinds (lots).....	1	Poles, telegraph (lots).....	1
Injector.....	1	Presses, letter, copy and stands.....	4
Ink slabs.....	2	Protractors, steel.....	1
Ink stands, all kinds.....	73	Pulleys, large iron.....	1
Jacks (two 9-inch and two 18-inch).....	4	Pumps, feed.....	2
Knives, all kinds.....	8	Pumps, hand.....	1
Ladders.....	3	Pumps, hydraulic pressure.....	1
Ladles, metal.....	1	Pumps, steam centrifugal.....	3
Lamps, all kinds.....	26	Pumps, steam.....	1
Lanterns, all kinds.....	22	Pumps, steam rotary.....	1
Leads, sounding.....	1	Racks, clothes.....	1
Levels, carpenters'.....	2	Racks, towels.....	3
Levels, engineers', B. & B., 1479.....	1	Rails, steel.....	84
Levels, engineers', B. & B., 1480.....	1	Rakes.....	1
Levels, engineers', B. & B., 135.....	1	Reels, all kinds.....	9
Levels, engineers', B. & B., 1831.....	1	Rods, level.....	20
Levels, engineers', B. & B., 1834.....	1	Rods, plumbing.....	1
Levels, engineers', B. & B., 1835.....	1	Rods, sounding.....	15
Levels, engineers', B. & B., 1836 (stolen from old police station at Lemont, Ill.).....	1	Rods, Stadia.....	10
Levels, engineers', B. & B., 1837.....	1	Rods, transit.....	37
Levels, engineers', B. & B., 1841.....	1	Rope (lots).....	1
Levels, engineers' H. & S. 370.....	1	Rulers, desk.....	25
Levels, engineers' H. & S. 381.....	1	Rulers, straight edges, all kinds.....	23
Levels, engineers' H. & S. 382.....	1	Safes.....	7
Levels, engineers' H. & S. 449.....	1	Saucers, color (sets).....	4
Levels, engineers' Y. & S. 6363.....	1	Saws, all kinds.....	14
Levels, engineers', Precise.....	1	Scales, measuring, all kinds.....	61
Life buoy.....	1	Scales, testing.....	1
Locks, oar (pairs).....	7	Scales, weighing, all kinds.....	10
Locks, pad.....	6	Scrapers, tin.....	6
Lubricators, all kinds.....	3	Scows.....	6
Machines, calculating.....	2	Screws, iron bench.....	1
Machines, cement testing.....	3	Scythes and snaths.....	2
Machines, hole punching.....	1	Sextants.....	1
Machines, milkshaking.....	1	Sextants, pocket.....	1
Machines, paper fastening.....	3	Shears (pairs).....	13
Machines, typewriting.....	2	Shelving (lots).....	1
Mallets.....	1	Shovels, all kinds.....	75
Maps (lots).....	1	Sieves and screens.....	10
		Slabs, marble.....	2

Articles.	Amount.
Slabs, slate.....	1
Smoke stacks (feet).....	148
Spoons, linemen's.....	10
Squares, carpenter's.....	3
Squares, T, wood.....	11
Stamps, rubber.....	19
Stamps, steel.....	3
Stamps, stencil (sets).....	1
Stands, wood.....	2
Steamfittings (lots).....	1
Stock and dies.....	2
Stone, crushed granite (car loads).....	4
Stone, grind.....	7
Stone, oil.....	4
Stools, all kinds.....	27
Stenolls.....	18
Stoves, all kinds.....	14
Switches, railroad.....	9
Tables, drafting.....	20
Tables, all other kinds.....	21
Tampers, linemen's.....	1
Tanks, water.....	2
Tapes, metallic.....	19
Tapes, steel.....	32
Taps, pipe.....	3
Thermometers.....	4
Timers, float.....	5
Torches, all kinds.....	11
Towels, roller.....	12
Transits, B. & B. 1523.....	1
Transits, B. & B. 1526.....	1
Transits, B. & B. 1902.....	1
Transits, B. & B. 1903 (stolen from old police station at Lemont, Ill.).....	1
Transits, B. & B. 2097.....	1
Transits, H. & S. 399.....	1
Transits, H. & S. 376.....	1
Transits, H. & S. 338 (stolen from Chicago River Bridge office).....	1
Transits, H. & S. 459.....	1
Transits, H. & S. 465.....	1
Transits, H. & S. 470.....	1
Transits, Y. & S. 6385.....	1
Transits, Y. & S. 6386.....	1
Triangles, all kinds.....	8
Trivets.....	1
Trowels, all kinds.....	7
Trucks.....	3
Tubes, sand testing.....	8
Type (sets).....	2
Umbrellas, canvas.....	1
Vises.....	3
Water coolers.....	1
Weights, paper.....	157
Weights, spline.....	13
Winches.....	1
Wire, copper (lots).....	1
Wrenches, all kinds.....	27

REPORT IN REFERENCE TO PURCHASE  
OF PROPERTY FROM JAMES MAXWELL  
AND HENRY B. MAXWELL.

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee as follows:

CHICAGO, June 19, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance begs leave to report that it has duly considered the needs of the District and the necessities of navigation at the junction of Stock Yards Branch with the South Fork of the South Branch, and beg leave to recommend the purchase from James Maxwell and Henry B. Maxwell of the following described land, to-wit:

Lots two hundred and twenty (220) and two hundred and twenty-one (221) in Green's South Branch Addition extended, being a subdivision of that part of the northwest quarter (N. W.  $\frac{1}{4}$ ) of Section twenty-nine (29), Township thirty-nine (39) North, Range fourteen (14) East of the Third Principal Meridian, not heretofore subdivided into lots, together with Block thirty-two (32) in the Canal Trustees' Subdivision of blocks in the south fractional half of Section twenty-nine (29), Township thirty-nine (39) North, Range fourteen (14) East of the Third Principal Meridian, situated in Cook County.

Your Committee has agreed on behalf of the District to pay for said property the sum of forty-seven thousand, nine hundred sixty-five dollars and thirteen cents (\$47,965.13), also the sum of thirty-five hundred dollars (\$3,500.00) for damages to improvements on said property and expenses of removing the same.

Your Committee therefore recommends that the President and Clerk of the District be authorized and directed to pay the sum of fifty-one thousand four hundred and sixty-five dollars and thirteen cents (\$51,465.13), when the said James Maxwell and Henry B. Maxwell shall have executed and delivered to said Sanitary District of Chicago a good and sufficient abstract and warranty deed, conveying to said District

the said above described property, free from all incumbrances.

Respectfully submitted,

(Signed) Z. R. CARTER,  
Chairman.

WM. H. BAKER,  
WM. LEGNER,  
FRANK X. CLOIDT,  
THOMAS A. SMYTH,  
ALEX. J. JONES,  
Committee on Finance.

(Two enclosures.)

Mr. Wenter presented the following minority report:

CHICAGO, June 14, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The undersigned members of the Committee on Finance dissent from the majority report of said Committee in reference to the purchase of the property of the Maxwell Brothers, located at Laflin Street and the South Branch of the Chicago River, and assign our reasons herewith:

First—The price paid per square foot is 25 per cent higher than the valuation placed thereon by the real estate experts of the Special Commission—theirs being 60 cents per square foot, while the District pays 75 cents per square foot. Upon a more thorough investigation of the property we not only found that the valuation placed thereon is high, but also that the property in question has an old dilapidated dock, almost all of which is lying in the river, and the earth behind it is partly washed into the river.

Second—The amount of property taken is beyond the requirement of the corporate purposes of the Sanitary District. The hope that the United States Government will take it off our hands is remote, inasmuch as an appropriation will have to be made by Congress for said purpose. An effort was made at the last session of Congress by Congressman Mann and it failed, as the Government requires the removal of the obstructions in the river, such as center-pier bridges and tunnels, first before favorable action can be had.

If a turning basin is to be made at that

point, the property east of Ashland Avenue, lying between the north and south arms of the South Branch of the Chicago River, forming a triangular shaped piece of land, is a most available piece for that purpose.

In view of the facts above cited, we are opposed to paying such an exorbitant price for said property, as there is no immediate need of the property, even when the full flow is had.

Respectfully submitted,

(Signed) FRANK WENTER,  
THOMAS J. WEBB.

Mr. Wenter, seconded by Mr. Webb, moved the adoption of the minority report.

The roll being called on the adoption of the minority report, it was lost by the following vote:

*Yeas*—Messrs. Webb and Wenter—Two.

*Nays*—Messrs. Baker, Carter, Cloidt, Jones, Legner and Smyth—Six.

Mr. Carter, seconded by Mr. Legner, thereupon moved that the majority report, as presented, be adopted, and the recommendations contained therein concurred in.

The roll being called on the adoption of the majority report, it was carried by the following vote:

*Yeas*—Messrs. Baker, Carter, Cloidt, Jones, Legner and Smyth—Six.

*Nays*—Messrs. Webb and Wenter—Two.

STATEMENT IN REFERENCE TO THE MINORITY REPORT OF THE FINANCE COMMITTEE ON PURCHASE OF MAXWELL PROPERTY.

At a meeting of the board held June 28, 1901, the following statement, being in reference to the minority report of the Finance Committee on the purchase of property from James and Henry B. Maxwell, was presented by Mr. Carter, and, by unanimous consent, ordered printed in the proceedings of the Board as of this date:

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The minority report, having reference to the purchase of the Maxwell property, is so worded as to convey to

the public a false impression. I therefore desire, as a member of the Committee on Finance, to place in the proceedings of this Board a statement of facts relating to the agreement just reported by the majority of the Committee.

First, answering the language used in the minority report regarding the price, the facts are, that sometime since the Sanitary Board obtained the services of three discreet men, who were fully advised regarding the value of property along the Chicago River, and acting under their appraisal and advice, which was furnished the Trustees after they had given careful consideration to the pieces of property required by the plans of the Sanitary District, the members of the Board unanimously agreed to purchase property in the vicinity of the Maxwell property at a price 33% higher than the price reported by the majority of this Committee for the Maxwell property, and in those cases the Sanitary District built a new dock. Something like a year since, the Board of Trustees began negotiations with the Maxwell Brothers for the purchase of so much of their property as the carrying out of the plans of the Sanitary District required, and during these negotiations an offer was made to the Maxwell Brothers at 75 cents per square foot for the property required. The Sanitary District agreeing in that case to build a new dock, or \$1.00 per square foot, Maxwell Brothers to build their own dock, and in addition thereto the Board offered Maxwell Brothers \$3,500.00 for removing the buildings that were on the property to be acquired, and \$500.00 for the removal of the lumber then upon the ground.

The proposition as above stated was authorized and approved by every member of the Finance Committee, which includes the full membership of the Board. Maxwell Brothers declined the offer and made a demand for a large sum of money for damage to the remainder of the property. No further progress was made in the negotiations for several months.

Second, as to the amount of property required. Recently some of the Trustees became convinced that the plans of this board were not adequate at that point for the future needs of the Sanitary District, owing to the fact that a counter current of

(120,000 cubic feet of water per minute) is to come from the Thirty-ninth Street conduit through the south fork of the South Branch of the Chicago River and joining the main river at this point, thereby creating a difficult condition for navigation.

A few weeks since, Trustee Wenter, after having gone over the ground and given the matter careful consideration, stated to me that he was fully convinced that the amount of property, then being negotiated for with Maxwell Brothers, was not sufficient to meet the future requirements of the Sanitary District at that point; and the members of this Board also learned that Major Willard, United States Engineer at Chicago, had perfected plans for a turning basin at the point under consideration, and these plans not only required the property just east of Ashland Avenue, which, as mentioned in the minority report as available for the purpose, but they also require the property of the Maxwell Brothers, which the majority of the Committee favor purchasing.

I desire to add that the accident to the schooner, "George Nester," which recently occurred at that point, conclusively shows the wisdom of the action of the majority of the Committee.

(Signed) Z. R. CARTER,

*Member of Finance Committee.*

#### REPORT OF THE COMMITTEE ON ENGINEERING IN REFERENCE TO THE BOARD OF ENGINEERS' REPORT OF THE SPECIAL COMMISSION OF EXPERTS.

Mr. Smyth, member of the Committee on Engineering, presented a report from the Committee as follows:

CHICAGO, June 19, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering, to which was referred the report of the Board of Engineers of the Commission of Experts, begs leave to report the same back, together with the communication of the Chief Engineer thereon, and recommend that the first six exhibits, viz: Scheme I. in three parts, Scheme II., Scheme III., and the letter of transmittal, of said report be printed in the Proceed-

ings as a permanent record for the future information of your Honorable Body.

Your Committee is of the opinion that the information gathered by the Expert Commission is of great value to the Sanitary District, and will continue to become a more important matter of reference as the problems therein discussed may in the future be taken up for solution by your Honorable Body.

In conclusion, the Committee desires to reaffirm its confidence in the wisdom of retaining, as the present policy of the District, the plans adopted by your Honorable Body on the 11th of April, 1900, and which we believe, considering the limited financial resources of the District, present the only practical solution of the existing difficulties. Under these plans the Board should immediately proceed to dredge so much of the Chicago River, from Lake Street to Robey Street, to a depth of 26 feet, as may be performed between now and January 2, 1902. The said work to be done under the direction of the Chief Engineer, who shall first direct the dredging of the narrowest cross sections of said river; to substitute bascule bridges for center pier bridges as rapidly as proper regard for street traffic will permit and the necessities of the Sanitary District may require; and should widen the Chicago River to 200 feet, as soon as the financial condition of the Sanitary District will permit. Due provision should likewise be made for the future development of commerce by the construction of all bridge substructures in such manner as to permit the future deepening of the river channel to 30 feet, whenever the needs of commerce, or the cross section necessities of the Sanitary District, may require.

The importance of proceeding at once to deepen the Chicago River is apparent to every observer of the conditions that prevail in that stream, and should be rapidly prosecuted, in the hope that the War Department may soon permit the resumption of the full legal flow of 300,000 cubic feet of water per minute required by the state law. That this improvement by dredging at this time is in thorough accord with the economic and progressive improvement of the Chicago River is evidenced by the opinion of the Chief Engineer, who holds that the

irregular pools, necessarily created by the inability to dredge to full depth in bridge openings, will not be filled in by deposits from the running water, but that the work of deepening to 26 feet is "a contribution to the permanent improvement of the river." The Chief Engineer states that from experience and observation, as well as from his knowledge of hydraulic principles, "the velocity that will obtain with the flow of 300,000 cubic feet of water through the river will be sufficient to keep organic matter discharged into the stream moving with the current and so reducing sedimentation to a minimum." The full opinion of the Chief Engineer on this subject, being in response to a letter of inquiry from the President, is hereto appended and made a part of this report.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,  
ALEX. J. JONES,  
Z. K. CARTER,  
WM. H. BAKER,  
WM. LEGNER,  
*Committee on Engineering.*

The following is the letter of inquiry from President Jones, referred to in the report of the Committee on Engineering:

CHICAGO, June 18, 1901.

*Hon. Isham Randolph, Chief Engineer:*

DEAR SIR—It is my belief that the Board should take immediate action towards directing the dredging of the river the full depth of 26 feet at least, from Lake Street to Robey Street, except at such points near dock lines and in bridge openings, where it might be impossible to secure this full depth.

In view of the fact that the result of this work will be to create pools of unequal depth, I desire to inquire whether it is your belief, from experience and observation, as well as from your knowledge of hydraulic principles, that this work will necessarily result in the rapid filling in of these pools by deposits, or whether the improvement may be properly regarded as part of our permanent plant.

Very truly yours,

(Signed) ALEX. J. JONES,  
*President.*

The following is the response from Chief Engineer Isham Randolph to the letter of inquiry from President Jones, referred to in the report of the Committee on Engineering:

CHICAGO, June 18, 1901.

*Hon. Alexander J. Jones, President:*

DEAR SIR—Yours of this date, relating to the deepening of the Chicago River to twenty-six feet, has had my careful consideration. You ask, "in view of the fact that the result of this work will be to create pools of unequal depth, I desire to inquire whether it is your belief, from experience and observation, as well as from your knowledge of hydraulic principles, that this work will necessarily result in the rapid filling in of these pools by deposit, or whether the improvement may be properly regarded as a part of a permanent plan?"

I regard any work done in the direction of deepening to twenty-six feet as being a contribution to the permanent improvement of the river. While it is true that increased area of cross section reduces velocity of flow for any given volume of water, the hydraulic slope remaining the same, yet it is my belief that the velocity that will obtain with a flow of 800,000 cubic feet of water through the river will be sufficient to keep organic matter discharged into the stream moving with the current and so reducing sedimentation to a minimum.

Yours very truly,

(Signed)

ISHAM RANDOLPH.

*Chief Engineer.*

Mr. Wenter presented the following minority report in connection with the report presented by the Committee on Engineering:

CHICAGO, June 19, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The undersigned members of the Committee on Engineering are in accord with the majority report as to the disposition to be made of the documents of the Special Commission, filed with this Board through the recommendations of our Chief Engineer, but believe that all work

on the South Branch of the Chicago River, from Lake to Robey Street, should be of such a character as to insure the widening of the same to 200 feet.

First—The removal of all obstructions, such as center-pier bridges, tunnels, etc., and

Second—When that is done, an ultimate depth of 26 feet should be attained.

First of all, however, the financial resources of the Sanitary District should be held in reserve for the purpose of replacing all center-pier bridges by bascule bridges, and the removal of such obstructions as are a menace to the navigation interests of the city and retard the flow of water that is required by the Sanitary District to comply with the law. When such an amount of money as is required for the reconstruction of such bridges is reserved, then sufficient right of way should be acquired, as far as the money can reach, to make the Chicago River of a width of 200 feet. Such acquirement of property, however, should cover, as nearly as possible, a continuous stretch along the Chicago River.

The undersigned, members of the Committee on Engineering, are opposed to any additional dredging at this time. The mischievous agitation for the reduction of the flow of water in the Chicago River was void of all civic pride—it had but a selfish end to serve, which will cost this District hundred of thousands of dollars. This makeshift of dredging to twenty-six feet before all of the center piers are removed is only one of the agencies to devour the funds of the Sanitary District. During the greater part of 1900 an approximate full flow was had through the Chicago River, although it was well known that some of the improvements in the river, as contemplated in the original plans, were not then, nor are they now, completed; such as the two bascule bridges at and near Taylor Street, which will be finished by August 1st. When these bridges are completed, the flow can readily be increased to approximately near the amount that the law calls for. The current of flow in the river at present is a snail's pace and a more rapid current should be had at once.

We are opposed to the dredging of the



river to twenty-six feet at this time, because

First—No universal cross section can be attained while the center piers remain—they being in the center of the river with an opening on each side of the approximate width of from 45 to 50 feet, making a total width of from 95 to 100 feet. What good effect will be had if we dredge the river to 26 feet at this time? As an illustration, between Harrison and Polk streets, where there is an approximate width of 140 feet, while the opening between the bridges is contracted to 90 feet? If a greater cross section for the flow of water is to be obtained, the opening in the draws should be dredged, provided it could be safely undertaken. This is out of the question, as the present docks adjoining the bridge abutments would have to be replaced, and the abutments, as well as the center pier bridges of the old type, are liable to fall into the river. The deepening of the river to 26 feet is an absurdity at this time and a waste of money. As long as the center piers remain no good results can come from such expenditure.

Second—The crests of the tunnels are, on an average, sixteen and one-half feet below the water line. This is another reason why a depth of 26 feet at this time is absurd.

We believe that such progress should be made, with the money on hand, as will insure the greatest permanent benefit to the interests of the Sanitary District, which are identical with the commercial interests along the Chicago River; and no money should be expended for any improvements except such as are of a permanent character.

When the Trustees went to the Legislature, this is what they said, among other things, in their demand for an increased revenue:

"To be devoted specially to the removal of obstructive center-pier bridges and the substitution of modern structures and other improvements of the Chicago River, to permit the flow of water required by law

without unreasonable obstruction to navigation."

Respectfully submitted,

(Signed).

FRANK WENTER.

THOMAS J. WEBB,

Mr. Wenter, seconded by Mr. Webb, moved that the minority report be adopted.

The roll being called on the adoption of the minority report, it was lost by the following vote:

*Yeas*—Messrs. Webb and Wenter—Two.

*Nays*—Messrs. Baker, Carter, Cloidt, Jones, Legner and Smyth—Six.

Mr. Smyth, seconded by Mr. Baker, thereupon moved that the majority report of the Committee on Engineering be adopted and the recommendations contained therein concurred in.

The roll being called on the motion made by Mr. Smyth to adopt the majority report of the Committee on Engineering, it was carried by the following vote:

*Yeas*—Messrs. Baker, Carter, Cloidt, Jones Legner and Smyth—Six.

*Nays*—Messrs. Webb and Wenter—Two.

The following are the conclusions and recommendations of Chief Engineer Isham Randolph on the subject matter contained in the report of the Special Commission of Experts:

#### CONCLUSIONS AND RECOMMENDATIONS OF CHIEF ENGINEER ISHAM RANDOLPH.

CHICAGO, May 24, 1901.

*To the Committee on Engineering:*

GENTLEMEN—Pursuant to your instructions, given me on Wednesday the 22nd inst., I respectfully submit the conclusions at which I have arrived after a careful consideration of the subject matter contained in the report of the Special Commission of Experts. Copies of the documents, maps, profiles and data turned over

by the Commission having been furnished me as its work progressed—as was proper, considering that under the resolution creating it, I was an associate member—I am in a position to report much more promptly than I would have been able to do had the subject come before me, with the original documents which you consigned to my keeping on Wednesday, as new matter.

The data submitted by the Expert Commission is accompanied by a letter of transmittal from the three Engineers who prepared it, distinctly stating that they report no conclusions and make no recommendations favoring the adoption of any one of the schemes outlined. This being true, the discussion which I have prepared and submit herewith, sets forth my own views of the merits of the projects themselves, and may be regarded as contemporaneous matter, to be discussed upon its merits in any consideration which may now, or hereafter, be given to the projects figured upon by the experts.

The following is the resolution presented by Mr. Smyth, appointing a Special Commission of Experts on Chicago River improvement:

"WHEREAS, It is necessary that additional and adequate provision should be made for the flow of a sufficient quantity of water through the Chicago River into the Drainage Channel, with the least possible interference with navigation on the river, and any work done in connection therewith should be done as a part of a complete and comprehensive plan; and

"WHEREAS, This Board of Trustees did on the 11th day of April, A. D. 1900, outline and adopt a general plan to meet the above conditions and requirements; and

"WHEREAS, It is important that these plans shall receive the approval of the best expert and legal authority before being finally consummated; therefore, be it

"Resolved, That the Board of Trustees hereby appoint Orrin N. Carter, John P. Wilson, Lyman E. Cooley, Ambrose V. Powell and Louis P. Friestedt as a Commission of Experts, to consider what improvements or changes should be made in

the plans of the Sanitary District for the improvement of the Chicago River, to allow the necessary flow of water, with the least possible interference to navigation practicable, taking into account the present and future needs of the Sanitary District, for furnishing the maximum flow of water under the Sanitary District Act, including the volume to be furnished by the Thirty-ninth Street conduit, including the removal of center-pier bridges, building bascule bridges, widening the river, building by-passes, establishment of dock lines and lowering the tunnels in the Chicago River. The Commission hereby appointed is directed to also fully consider these points from a legal and financial standpoint and make comprehensive report on or before March 1, 1901, to the Board covering all of the above matters and representing a complete plan for all of the improvements above mentioned.

"Resolved further, That this Board of Trustees respectfully invites the co-operation, as consulting associates on said Committee, of the following officials and representatives:

"By the permission of the Secretary of War, the officer in charge of this river and harbor district; by the City of Chicago, the Superintendent of Public Works and the Corporation Counsel; by the State Board of Health and by the Health Department of the City of Chicago, one representative each; by the Sanitary District, the Chief Engineer, the General Counsel and the Chairman of the Finance Committee; by the Chicago Board of Trade, Chicago Real Estate Board and the River Improvement Association, one representative each."

The foregoing resolution, when duly adopted, became the Commission through which the Board of Experts received its powers, and also an outline of the direction and scope of the work expected of the experts engaged thereunder.

Since the passage of the resolution on January 9th, the five gentlemen who constituted the Expert Board have been most diligent in prosecuting the work committed to them, and have accumulated a very large amount of data which, as information, is exceedingly valuable, but the all

important question to the Board of Trustees of the Sanitary District was the adequacy of the plans already adopted by the Board for the supply of water through the Chicago River to meet the requirements of the Sanitary District law, while at the same time meeting the commercial needs of the City of Chicago by improving the navigability of the river.

The District was well advised of the possible future needs of the urban population skirting the Lake Basin on the north beyond its limits. It was in possession of surveys and other valuable data relating thereto, and it had data for determining the volume of flow that it must at some future period of its history be prepared to take into its channel through the Chicago River, and the questions, therefore, which were all important to the Board were these:

1st—Will the plans of the District accommodate all future requirements so far as they relate to the objects and purposes for which the District was created without any infringement upon either travel or navigation?

2nd—Will the improvement of the Chicago River on the scale of magnitude contemplated lend itself to that progressive development on the north which must come in the early or late future?

In my view, to answer these questions it was not necessary to do more than to determine what volume of flood and sewage must be brought through the North Branch and past the Main Chicago River into the South Branch. What it may be necessary to do in caring for the sewage of the District, south of and outside the Sanitary District, was not an issue at this time, as the building of the Channel south of Summit is an accomplished fact, and its capacity is established beyond the possibility of change for generations to come; hence there was no logical reason for determining what must be done for that outlying territory as a condition precedent to determining upon the adequacy of the plans for improving the Chicago River.

The experts, however, differed with me, and as a consequence of their broader

view, they give us a report covering, let us hope, every phase of the problems of the Sanitary District of Chicago within the State of Illinois, and beyond its borders in the sister State of Indiana. In treating the Chicago River, the Commission has laid down as a rule for its guidance in determining the cross-section a current of 1198-1000 miles per hour after deducting an area of 1000 square feet for the presence of boats in the stream, and further, it has assumed that this Channel must carry 720,000 cubic feet of water per minute. Both of these assumptions are without warrant. The permit of the Secretary of War, under which the current of the Chicago River was reversed, allows a current of  $1\frac{1}{4}$  miles per hour in the stream without reference to boats, and the maximum volume of flow as set forth in the Sanitary District Law is 600,000 cubic feet per minute. This liberality is, therefore, entirely uncalled for. Navigation interests have no claim upon the Sanitary District for any conditions superior to those which existed in the Chicago River prior to the inauguration of work by the said District; what that condition was is a matter of such recent and general knowledge that it is almost unnecessary to rehearse it here, but as a part of the record, let it be entered as follows: A channel depth of seventeen (17) feet as dredged by the U. S. Government; a depth at dock lines of from 12 to 14 feet; congested openings in draw bridges, narrow and crooked places in the Channel and a constant deposit of solid matter from sewers etc., (which, according to Major Marshall, aggregated about 400,000 cubic yards per annum) tending to reduce the available depth for flotation and make a constant tax upon the revenues of the Government to maintain the depth fixed by Act of Congress. As a substitute for that condition the Sanitary District has already created a channel depth of 20 feet below the hydraulic grade line; it has undertaken to create a channel 200 feet wide with channel depth of 26 feet, and depth at docks of 16 feet; it is building bascule bridges as substitutes for the obstructive center pier bridges; one of these is completed and four more are under construction; others will follow as fast as funds are available and the demands of trans-river traffic will permit. Under its plans a flow of 480,000 cubic feet of water will be passed

southward from Lake Street at a velocity of less than one and one quarter miles per hour, and the remainder of the required volume, amounting to 120,000 cubic feet per minute, will be brought in through the Thirty-ninth Street conduit. It must be borne in mind that the vessel interests have suffered during the past season only on account of the unfinished condition of the work proposed by the Sanitary District. Vessels have stuck fast in the bridge openings or in narrow places in the stream where the work was incomplete. It is of record that with a flow of 350,000 cubic feet per minute, the velocity in the narrow stretch of channel west of Twenty-second Street was only 1.93 miles (the cross-section in this place is only 2,173 feet, with 20 feet of depth). With the same flow the velocity in the stream east of Main Street, which is now 200 feet wide and 20 feet deep, was only 1.08 of a mile. The width and capacity provided in the Sanitary District plans afford ample passage-way for the flood waters brought down by the North Branch of the Chicago River. The authorized scheme, therefore, meets all of the reasonable requirements of navigation, complies with the Sanitary District law, and affords the fullest benefits to all of the interests which the District ought to guard, for the least outlay of money, the estimate being \$9,024,000. Besides which the seemingly inevitable inflow from the Calumet region will tend to reduce the volume to be supplied through the Chicago River, and thus still further minimize the velocity in said stream.

As an alternative to the plan of your adoption there are various schemes suggested by the Expert Commission which they index as Schemes I., II. and III. Of these the first is a scheme of river improvement, which would make it a very roadstead for commodiousness, and let me say here that its magnitude is imposing and its boldness fascinating. That is just the thing I would like to see if it was practicable, but the cost is staggering, and when we examine the map and see that the expenditure of these millions (modestly estimated at \$22,862,879 00) means the wiping out of at least 80 per cent. of the business interests which now make the commerce on the South Branch of the Chicago River, and calls for a recasting of

the city's subdivisions so as to get depth of property fronting on the new improvement sufficient for the uses to which water fronting is dedicated, and when we realized that all the money already expended and that the obligations entered into by the Sanitary District in improving the conditions of the Chicago River in keeping with the plans of the Sanitary District, amounting to \$580,000, will have been wasted, and for that reason will have added that much more to the cost of the proposed scheme, our enthusiasm for it subsides and we see that it is impracticable, first, on account of cost, and second because many generations will pass away before the territory can be subdued for this new use, for we all know that the vested rights and entrenched interests to be invaded will make common cause against this invasion, not to say obliteration of their multimiform enterprises. The radical improvement under Scheme No. 1 is, therefore, entirely removed from the category of things possible of accomplishment.

The moderate improvement under Scheme No. 1 calls for a river 360 feet wide southwesterly to Seventeenth Street, a subterranean channel from the River to the Lake in the vicinity of Sixteenth Street costing \$1,799,114, and a moderate improvement of the river, from Seventeenth Street to the lake, which moderate improvement, according to the showing of the experts, will not care for the flow of sewage and flood waters, which we know will come down the North Branch, and which will, of course, find its way into the lake if it cannot go down the moderately improved South Branch, unless Controlling Works, such as they suggest, are resorted to. The estimated cost of this moderate improvement is \$12,701,755. In both proposed improvements under Scheme No. 1 there is an item of \$1,616,900 for enlarging the Main Channel, from Robey Street to Summit, to a bottom width of 220 feet. The plans of the Sanitary District for this stretch are based upon 183.26 feet bottom width, side slopes 2 to 1. This section with a minimum depth of 22 feet will flow 613,000 cubic feet per minute at a velocity of 1.4 miles per hour. The cost of this excavation would be about \$992,000.

It is proper to state here, that I believe I

voice the sentiment of your Honorable Body, when I say we are in full sympathy with the navigation interest, and are prepared to go to the limit of our ability in its protection and improvement, but that ability is limited by the letter and the spirit of the law for the creation of Sanitary Districts within the State of Illinois. We are not willing to subordinate the prime objects of this Channel to navigation, nor to use the resources of the taxpayers of this District in furtherance of harbor development or the exploitation of a ship canal, save as the same is a legitimate incident in the scheme of sanitation.

I consider next the

#### CALUMET REGION.

For this region we have, in connection with Scheme No. 1, two alternative suggestions:

First—The Sag Valley route, a canal project estimates to cost \$3,600,000. The canal to be supplied with water by pumps, located at Blue Island, delivering 60,000 cubic feet per minute into the proposed channel. As a solution of the maintenance of the navigable features of the Illinois and Michigan Canal, this is an admirable project. As a means of diverting sewage from Lake Michigan, it is absolutely abortive. A review of the conditions to be met demonstrates this. The discharge of polluted waters from the Calumet River into Lake Michigan is not an evil constantly prevailing, but is a constant menace and an intermittent evil. In dry seasons and calm weather the small discharge from the river into the lake can scarcely be said to make any current, and hence the organic discharge from sewers simply lies in the river channel and rots, awaiting freshets or lake changes to disturb its quiescence and carry its foulness out into the lake.

The pollution of the main Calumet River by sewers is limited to sewers entering at One Hundred and Third Street and between that point and the lake. The main source of pollution is at Hammond, in the State of Indiana, 11.87 miles from the lake, slaughter houses and glue works being

located there. Into the branch which comes past Blue Island on the west, a 5½-foot sewer discharges at Wildwood; a 10½-foot sewer at Wentworth Avenue, and a 6½-foot sewer at its confluence with Stony Creek. The cross-section of the main river, from its mouth inland for a distance of two miles, affords a width of 200 feet and a depth of 20 feet, giving a cross-section of 4,000 square feet, the resulting velocity of flow for 60,000 cubic feet per minute, if that entire volume was drawn in from the lake, which is not the case, would be only 15 feet per minute or an inappreciable movement; hence organic matter from sewage would settle in the channel just as it does to-day. This flow would not affect the Hammond pollution in the least and would affect the sewage discharged in the stream west of Riverside only.

The proposed pumping works would be located 15.6 miles from Ninety-fifth Street or 16.8 miles from the Lake. The results of the consummation of this suggestion under Scheme No. 1, therefore, would leave the pollution where it is to-day, ready to be swept by wind-made currents or scouring floods into the lake, but navigation on the Illinois and Michigan Canal would be cared for. The alternate suggestion or the "northern route" is estimated to cost \$6,366,000. This project has but one advantage over the Sag Valley route and apart from that is subject to all of the objections urged against that project. The one advantage hinted at is that the northern route lends itself to service in receiving the effluent of sewers on the south side of the city which may be made to discharge into it, and that by a sewer intercepting all of the South Chicago sewers and discharging into this canal via the northern route, the discharge would be kept entirely out of the Calumet River. This project also serves the Illinois and Michigan Canal as effectively as the Sag Valley route.

It should not be forgotten that the Illinois and Michigan Canal has been a most offensive open sewer and has been a blight upon real estate along its route, and the creation of its duplicate extending diagonally across the southern part of the city from One Hundredth Street and the Calumet River to about Fifty-seventh Street and

the westerly limits, is not a project which would find much favor in the eyes of the people whose property would be subjected to the detrimental effects of such a creation.

We who have lived in Chicago since the establishment of the Bridgeport Pumps, know what a poor makeshift that attempt at relief proved, when drawing its supply from the lake within less than six miles of the site of the pumps through a channel with scarcely half the cross-section of the Calumet River. Our experience has been that much of the organic matter discharged from sewers into the river simply festered in the Channel until freshets carried its poisonous aggregations out into the lake and fouled our drinking water. It should be remembered, too, that in flood time these pumps had to be stopped, because the Channel of the Canal was surcharged by local floods. The same condition would obtain in either of the Calumet projects under Scheme No. 1, which we have had under discussion.

Turning to the documents filed by the experts, we find on page 3 of the Appendix, No. 2 to Part II. of Scheme No. 1, occurs this language: "Considering the resources available in this territory it is apparent that a final solution adequate to all future requirements of this region cannot now be attempted, but at the same time it will be feasible and wise to direct all expenditures in harmony with some plan which may be eventually carried out."

These were words of wisdom in 1897, and they apply with just as great force to-day. The position of the Sanitary District is in line with their suggestion. Nothing has been done by this District which can hinder a wise treatment of the sanitary problems south of Eighty-seventh Street, and what the Sanitary District has already done is a tremendous contribution to the final provision for that region. This District once made a move in the direction of aid to that section, but was balked by the people who live within the territory to be benefited. Its attitude to-day is that of readiness to co-operate with any honest and intelligent effort to benefit that region materially on the lines for which it was created.

#### PUMPING STATIONS AND CONDUITS.

In the matter of cost of pumping stations completely equipped, I have arrived at the cost per horse power by the best approximations I can make without having actual plans upon which to base my figures, and I do not differ very materially from the data submitted to the experts as given for the North Shore Station and for the Calumet Station, but we singularly find an irreconcilable difference in results when we compare with the Lawrence Avenue and the Thirty-ninth Street pumping stations. When it comes to the cost of operation, we find the wildest discrepancy between the figures submitted to the experts and those which I believe to be conservative, and I am surprised at the inconsistencies which develop in comparing the cost of service of \$9,127.56 for the North Shore Station, with the capacity to pump 60,000 cubic feet per minute, with the cost of service fixed at \$20,984.00 for Lawrence Avenue Station, which is to have a pumping capacity of 37,000 cubic feet per minute, or with the cost of service fixed at \$51,879.00 for Thirty-ninth Street Station, with a pumping capacity of 128,880 cubic feet per minute.

The experts are presented with an empirical method of arriving at the cost of operating such plants. Now, Webster defines empirical as "used and applied without science." This formula is in unison with the last two words of Webster's definition, but we cannot believe that its use and application was ever known to any plant more efficient than the Bridgeport Pumping Works, whose evil fame as the monumental example of how to do the least work for the most money, has gone beyond the confines of Chicago.

They do not give proper weight to the fact that industrial organizations reduce coal bills by using slack, costing from 90 cents to \$1.10 per ton and effect a saving of about 40% over coals costing \$3.25 to \$2.40 (the units of cost per ton used in figuring cost of operation in the tables submitted to the experts). With the best modern equipment in competent hands, there is no reason why a municipality should not attain results comparable in economy with those attained by any private corporation.

I fail to agree with the findings given in

the data prepared for the experts for friction head and pumping head, either in the Lawrence Avenue conduit or the Thirty-ninth Street conduit, and although I submitted my figures to the experts during the progress of their work and asked that errors, if found, be pointed out to me, I received no information tending to enlighten me beyond the statement that they used "n" (coefficient for roughness) in Kutter's formula as .018, while we use "n" as .015. I fail to recognize the propriety of this increased value of "n;" there is no evidence which warrants me in discarding the findings of Kutter, Trautwine, Merri-man, Freley (the last named gives as the result of his own investigations "n" from .0142 to .0146.) Benzenberg, who by test on a 12-foot diameter brick conduit found "n" equal .014 to .0144, and Fitzgerald who adopted .015 after a personal examination of the Thirty-ninth Street conduit and left us his conclusions in his report as Engineer of the Governor's Special Commission. He had associated with him as an expert in that work Mr. Frizell and the natural inference is that they agreed in their conclusion.

Certain comparisons of the cost of pumping plants, together with capitalized cost of operation with the cost of open channels, are made and these I cannot accept because I do not accept the figures from which they are deduced. I give as follows my determination of flow in conduits, friction head, pumping head, equipment required to do the work and cost of operating the same.

#### THIRTY-NINTH STREET CONDUIT POWER PLANT.

Diameter, 20 feet.

Length, 12664.

Head, 6.3.

$s=0.004975$ .

$y_s=.0223$ .

$0.0281 \div s=5.646$ .

$n=.015$ .

$y_r=2.236$ .

$c=127.55$ .

$v=6.366$ .

$q=2000$  per second, 120000 per minute, head pumped against 5.3.

A—

Power to consist of three units capable of delivering 40,000 cubic feet of water against a head of 5.3 feet. One unit for pumping 8,880 cubic feet of sewerage against a head of 22.3 feet.

B—

The discharge of 120,000 cubic feet of water per minute includes the increment of sewage from intercepting sewers.

The volume pumped by the main, or three unit, plant to be 120,030 cubic feet, less 8,880 feet increment from sewers (as estimated by the City Sewer Department); hence the service of the three units reduces to 111,120 cubic feet; but for the purposes of this discussion 112,000 cubic feet will be used.

C—

Head pumped against 5.3,  $Q$  equals 120,000 cubic feet per minute; 5.3 ft.  $\times$  62.5 lbs.  $\times$  120 000 cu. ft. equals 39,750,000 foot-lbs.; 39,750,000 foot-lbs. divided by 33,000 lbs. equals 1204.5 theoretical horse power, or 70 per cent of the required horse power; hence the actual requirement will be 1721.

D—

*First Basis*—As a comparative proposition showing the best results of municipal operation in Chicago, we use the data given in the report of the Commissioner of Public Works (see 1898 report, page 55) for Sixty-eighth Street Pumping Plant. Pumping 1,000,000 gallons 1 foot high, 8.81 cents, which reduces to 133,333 cubic feet. On this basis the per diem cost of pumping 112,000 cubic feet per minute would be \$212.20, or \$77,453.00 per year.

(*Note.* Report of Commissioner of Public Works for 1899, gives cost of pumping 1,000,000 gallons one foot high as 2.92 cents at Fourteenth Street Station, or a reduction of 11.8 per cent from figures used in Case 1.)

E—

*Second Basis, Detroit*—The records of the water service in Detroit show the cost of pumping 1,000,000 gallons one foot high as low as 2.2 cents; on this basis the cost of operating the Lake Water Plant would be \$141.04 per day, or \$51,479.60 per year.

F—

*Third Basis*—On the basis of actual results in large power plants in Chicago the cost per kilowatt hour is 45-100 cent which reduces \$357 10000 cent per H. P. hour, say \$36-1000 cents or 8 64-100 cents per twenty-four hours. Required H. P. 1606 cost of operation per H. P. per twenty-four hours 8 64-100 cents. Total cost per twenty-four hours, \$129.41; \$129.41x365 = \$47,234.65, as the cost per annum pumping against the maximum head.

G—

The sewage pumps must have a capacity of 8,980 feet per minute, raised 22.8 feet, or 536 H. P. The cost of operating this section of the plant on each of three basis herein will be:

*First Basis, Sixty-eighth Street Pumps*—8.31 cents per million gallons raised one foot high, \$70.80 per day, or \$25,842.00 per year.

*Second Basis, Detroit*—2 2 cents per million gallons raised one foot high, \$17.06 per day, or \$17,176.90 per year.

*Third Basis (Large Corporation Plant)*—45-1000 cents per kilowatt hour, \$43.22 per day (24 hours), or \$15,775.30 per year.

Cost of operating Lake Water and Sewage Pumps per annum:

On first basis, \$77,543.00 plus \$25,842.00 equal \$103,295.00.

On second basis, \$31,479.60 plus \$17,176.90 equal \$48,656.50.

On third basis, \$47,234.65 plus \$15,775.30 equal \$63,009.95.

## COST OF PLANT.

"Kent," on page 790 of his Mechanical Engineers pocket book, gives data for determining cost of engines and boilers, etc.; of different types. Taking his figures on compound engines with boiler equipment we get the following results:

PER H. P.

Cost of engine with piping complete. \$25 00  
Cost of boilers, feed pumps, etc. 9 33

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\$34 33

PER H. P.

Cost of engine house.....\$ 8 00  
Cost of boiler house..... 2 92  
Cost of engine foundations.... 7 00  
Cost of chimney and flues..... 6 11  
—————\$ 24 03

Total, per H. P. .... \$ 58 36

Having no available data for cost of pumps \$40.00 per H. P. is assumed as fair.....\$ 40 00

Total cost per H. P. of plant.....\$98 36

Cost of Lake Water Plant, 1721

H. P. at \$98.36.....\$169,277 56

Cost of Sewage Plant, 536 H. P.

at \$98.36..... 52,720 96

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\$221,998 52

NOTE—The Sanitary District is to pay two-thirds of the first cost of the three units for lake pumpage, the remaining cost to be borne by the City of Chicago.

## LAWRENCE AVENUE POWER PLANT.

Diameter of sewer, 16 feet.

$r=4$ .

$r'=2$ .

$l=14066$  feet.

$h=2.5$ .

$s=0001778$

$r's=01333$ .

$1.811 \div 0.15=12073$

$00281 \div 3=15.80$ .

$015 \div 2=0075$ .

$n=.015$ .

$c=124.52$ .

$v=3.32$ .

$q=867.3$  per second, or 40089 per minute.

One unit of 40,000 cubic feet per minute or two units of 20,000 cubic feet per minute, preferably the latter. (The contract requirement with the city is for 35,000 cubic feet per minute only.) Plant to be located at the intersection of Lawrence Avenue and the Chicago River. Head pumped against three (3) feet. Power required is arrived at as follows: Data, 40,000 cubic feet per minute pumped three feet high.

$40,000 \times 62.5 \times 3 = 7,500,000$  lbs. 7,500,000-



33,000=227.3 H. P., or 70 per cent of actual horse power, which will be 324 H. P.

#### OPERATION.

*First Case*—On basis of results reported for Sixty-eighth Street Pumping Station, 1,000,000 (133,333 cubic feet) pumped one (1) foot high, cost 3.31 cents.

$$\frac{40,000 \times 8 \times 1440}{133,333} = 1296. 1296 \times 3.31 \text{ cts.} = \$42.90 \text{ per day.}$$

$$\$42.90 \times 365 = \$15,668.50 \text{ annual cost.}$$

*Second Case (Detroit)*—1296x2.2 cts.—\$28.51 per day.

$$\$28.51 \times 365 = \$10,406.15 \text{ annual cost.}$$

*Third Case*—324x8.064—\$26.18 per day.

$$\$26.18 \times 365 = \$9,587.45 \text{ annual cost.}$$

The cost of this plant should not exceed the cost to the city of Milwaukee of the flushing plant constructed for the same city in 1888. The details of this cost we have, and the aggregate is \$72,336.64. For the purposes of this estimate we will use \$75,000 as the cost. The cost of buildings naturally bears a larger proportion to the cost of machinery for a small plant than for a large one. The figures used for cost of plant are what we believe the same can be supplied for, but to meet all contingencies we are ready to accept an increase of 25 per cent on our estimates.

How nearly our estimates are sustained by manufacturers' estimates may be seen by an examination of letters from E. P. Allis Company, copies of which are submitted by the experts. They give as the cost of the North Shore Plant two units of 60,000 cubic feet per minute capacity, each pumping against a head of three (3) feet, \$100,000, or \$100 per H. P. on the rating used.

For the Calumet Station they quote on two units, each having a capacity of 30,000 cubic feet per minute against a head of eight (8) feet, requiring 1,400 H. P. to operate them, \$135,000, or \$45.42 per H. P. These are estimates, not bids, and it is well known that manufacturers' estimates on cost of plant are always in excess of the

prices which they use in competitive bids upon work.

A reserve unit on the Thirty-ninth Street Pumping Plant is suggested in the schemes, but there is no necessity of any such provision. We propose equipping that plant with three units of 40,000 cubic feet per minute each, and while I recognize that one or the other of these units may for a short time be laid up for repairs, yet I do regard such a contingency as in any way militating against the good faith of the District, nor do I believe that temporary reduction of flow to the extent of 40,000 cubic feet per minute would work any harm. Moreover, it must be remembered that these units in ordinary service are not worked to their maximum capacity, and upon occasion can be readily speeded up so to materially increase the capacity in case of the disabling of one or the other machine (see letter of E. P. Allis & Co., signed Irving H. Reynolds). The reasonableness of this position makes me question the propriety of loading the Thirty-ninth Street proposition with 33 1/3% in addition to the original estimate of cost, extravagant as I believe that estimate to be.

I note with some satisfaction that, as a result of the request of the Chairman, approximate estimates have been prepared upon a series of conduits for the supply of water into the Chicago River. These are grouped, five in a series, and each is equipped with two units of 62,600 cubic feet per minute capacity (a reserve of two units is also provided). The tunnels are of the same diameter as Thirty-ninth Street, the volume to pass through each 125,200 cubic feet per minute and the head pumped against is given as three (3) feet. (The length of these tunnels is only about one-third that of Thirty-ninth Street; hence only about one-third head, though one and eighth-tenths feet head would be better than three). The estimate of cost of plant is \$50,000 per unit or \$500,000 for the twelve units with \$400,000 added for buildings, intakes, bays, screens, etc. The results show a total cost per unit of \$83,333.33. On the same basis the three units for lake water at Thirty-ninth Street would cost only \$250,000. For cost of operation, however, the empirical formula hereinbefore discussed is adhered to.

In discussing the volume of flow which it is proposed to pass through the Thirty-ninth Street conduit, preferment is given the statement contained in a letter from the Commissioner of Public Works in which he uses 128,680 cubic feet as the volume to be provided rather than 120,000 cubic feet per minute, the volume reported by the Chief Engineer of the Sanitary District, notwithstanding the President sustains the Chief Engineer; this too in the face of the ordinances and agreements, which are made exhibits, relieving the city of all further responsibility or authority in the premises after it shall have provided the conduit and a pumping plant—to be erected and equipped in a manner acceptable to the District—capable of delivering a minimum of 40,000 cubic feet per minute. This is simply piling up cost against an unfavorable method of supplying water in contrast to other projects.

I note the cost of gravity channels from the Calumet, discharging into the Sanitary District Canal on alternate routes, the "Calumet Summit," and the "Calumet Sag." On the first named, the cost ranges from \$9,458,884 for a flow of 228,600 cubic feet per minute up to \$17,278,611 for a flow of 699,100 cubic feet per minute. On the last mentioned, the cost ranges from \$11,279,854.00 for a flow of 277,600 cubic feet per minute up to \$26,143,274.00 for a flow of 688,926 cubic feet per minute. These estimates of cost bar the serious consideration of either project at this time.

I do not feel that there is any pressing call for the adoption at this time of any solution of the Calumet problem; the territory over which that problem spreads is not within the jurisdiction of the Sanitary District and its annexation does not appear to be imminent. Nevertheless, the discussions of things that may be done to aid that territory and form a part of the general scheme, as presented to the experts, are both interesting and instructive, and when the time is ripe for action they will serve a purpose as being so much available information bearing upon the solution of these grave questions. The proposed diversion of flood waters of the Little Calumet into Lake Michigan at a point in Porter County, two miles east of the west line of said county, is a suggestion worthy of the best effort of the property owners of

the Calumet region, altogether apart from its merit as a factor in the eventual work of flood disposal as an element in the execution of a "comprehensive plan" for sanitation. Its execution would be comparatively easy if the question of governmental jurisdiction did not intervene to hinder it.

When these questions come up for final determination, I may have no voice or influence in that determination, and therefore I avail myself of this opportunity to protest against any solution which will bring into the Desplaines and Illinois Valleys the flood waters of the shed tributary to the Calumet region, or any portion of them. The provision already designed for maximum discharge of flood and Main Channel waters through Joliet is, I believe, fully adequate to the requirements that must be met. That determination is based upon a flood discharge from the Desplaines watershed north of Joliet of 800,000 cubic feet per minute; flood waters from the area tributary to the Illinois and Michigan Canal north of Joliet 100,000 cubic feet per minute and a nominal discharge of 600,000 cubic feet from the Main Channel of the Sanitary District.

I know of nothing authentic which would tend to invalidate the conclusions arrived at prior to the determination of the plans adopted by the Sanitary District for its work through Joliet. The introduction of flood waters in excess of these determinations from territory not naturally tributary to the flood volume of the Desplaines and Illinois Valleys, would create an element of liability to the inhabitants of the territory, whose property would be placed under servitude to flood conditions which ought never to be added to the burden of the Sanitary District.

Taking up the question of the publication of the documents turned over by the Commission, the schedule of which is attached, I suggest that the first six exhibits, viz, Scheme I. in three parts, Scheme II., Scheme III. and the letter of transmittal, be published in the proceedings of the Board as the surest method of preserving the data therein contained for ready reference. The appraisement of real estate and the estimated amount of damage to buildings along the river all have immediate value in meeting the questions raised

by the plans of the District, but these of course are not for publication.

The documents and data of various kinds used by the experts in formulating their report make a volume of matter, the printing of which, in my judgment, would conserve no useful purpose at all commensurate with the cost of printing. All of that material should be preserved among the records of the Engineering Department of this District. A tin box with lock has been provided in which to keep in separate and distinct from other data belonging to the department. I have ordered a tin cylinder in which to keep all of the maps, profiles and drawings shown in the schedule as having been turned over to us. This also is fitted with lock and key.

The letter of the experts, transmitting their work, distinctly states that they report no conclusions and make no recommendations. I desire as distinctly to report my conclusions and make my recommendations as follows: My belief is that the plans of the Sanitary District for the Chicago River are adequate for the future development or projects for relief of territory adjacent to and north of Chicago; that they afford provision for the volume of flow demanded by the Sanitary District, and that while meeting these conditions they contribute to the commercial interests of Chicago by providing a stream deep enough and wide enough to meet the needs of navigation, and that too with a current which comes within the reasonable limitations made by the Secretary of War, in whom is vested the power to regulate any artificial flow which may be created in navigable waters of the United States. I feel, therefore, that you are justified in inviting all those who have the best interests of Chicago at heart to join with you in an earnest effort to bring the plans of the Sanitary District to early completion. The cost of completing the 200 foot river project with a channel depth of 28 feet, as figured by me, will be \$9,024,000, and as submitted by the experts, \$8,690,940, or nearly \$ 69-100 per cent less than our own estimates; certainly a remarkably close result when the intricacies of the work are considered.

Respectfully submitted,

(Signed)

ISHAM RANDOLPH,  
Chief Engineer.

LIST OF DOCUMENTS, ETC., ON FILE AND IN CHARGE  
OF HIERO B. HERR, SECRETARY OF EX-  
PERT COMMISSION.

1. Scheme I, Part I.
2. Scheme I, Part II.
3. Scheme I, Part III.
4. Scheme II.
5. Scheme III.
6. Letter of transmittal of the above with tabular correspondence.

*Working Data.*

1. General outline of various projects.
2. Schedule, Scheme I.
3. Schedule, Schemes II and III.
4. Statistics.
5. Yearly charge pumping.
6. Commerce Chicago River.
7. Co-efficients, hydraulic grades.
8. Areas 200 feet river.
9. Right of way, Chicago and Calumet rivers, six documents.
10. Right of way, North Shore canal.
11. Right of way, Sixteenth Street.
12. Daily and weekly flow.
13. Estimate, Sixteenth Street inlet.
14. Statement, quantities North Shore canal and Calumet canals. Scheme I.
15. Bridge estimates.
16. Seven sheets estimates Chicago River.
17. Six sheets estimates Calumet canals.
18. Tabulation Calumet canal.
19. Unit prices, main channel.
20. Discharge observations Calumet River.
21. Disbursements drainage trustees.
22. Construction contracts.
23. Sundry memoranda.
24. Right of way for sections North Shore canal.
25. Estimate for pumps at Wilmette.
26. Amount paid for construction, etc., Chicago River.
27. Capt. Keith's exhibit.
28. Right of way Calumet canals, five documents.
29. Sundry letters.
30. Letter press copy book.
40. Minutes book.
41. Population, 5 documents.

Received the above documents from Hiero B. Herr, May 10, 1901.

W. T. KEATING.

LIST OF MAPS AND DIAGRAMS ON FILE AND IN  
CHARGE OF HIERO B. HERR, SECRETARY  
OF EXPERT COMMISSION.

Four sheets, Scheme 1.  
One sheet North Shore district.  
One sheet Calumet district.  
One sheet Calumet canal section.  
One sheet profile and section Sixteenth Street.  
One set 50 foot scale maps showing moderate improvement and variation of Scheme 3.  
One sheet, section of gravity dock, moderate improvement.  
Two sheets, 200 foot project.  
One unfinished index map.  
One sheet Calumet River diversion.  
Received the above documents from Hiero B. Herr, May 10, 1901.

G. H. HILLEBRAND.

The following is that part of the report of the Board of Engineers of the Special Commission of Experts, recommended by the Committee on Engineering and Chief Engineer Isham Randolph, to be published in the proceedings of the Board.

REPORT OF THE BOARD OF ENGINEERS  
OF THE SPECIAL COMMISSION  
OF EXPERTS.

*Hon. O. N. Carter, Chairman Special Committee of Experts:*

SIR—We hereby place in your hands, as Chairman of the Committee of Five, and for the consideration and use of the consulting associates, certain exhibits as follows:

Scheme No. 1, in three parts.

Scheme No. 2.

Scheme No. 3, in two parts.

These exhibits are in conformity with the precise adopted on January 17th, and the schedules prepared by the undersigned immediately thereafter as a guide to the detailed investigation. Except as actual conditions have modified statements of fact, no departure has been made, and the subject matter, so far as outlined, has been substantially covered.

At our first meeting for organization, it was concluded that, under our instructions, the Committee could undertake any investigation that it deemed expedient, and it was recognized that any legitimate comparison of different schemes must rest on solutions that comprehended the entire

problem, practically, of the Illinois Lake Front.

Scheme No. 1 attempted to segregate the problem, so far as practicable, in separate solutions, for the Sanitary District, the Calumet District and the North Shore District; but no consideration could eliminate the relationship on the south through the Thirty-ninth Street conduit and the Calumet Northern Canal, and on the north through the North Branch, Lawrence Avenue conduit and the North Shore Canal. Schemes No. 2 and No. 3 assumed at the outset the intimate relationship of the Sanitary District and the Calumet District.

These exhibits are intended to be only an orderly arrangement of the material facts, without deduction, opinion or argument, as decided upon at the outset in view of the relation of the Committee of Five to the Consulting Associates. The material was assembled as the data were worked up and a natural arrangement was adopted. What the full bearing of the facts would be could only be determined after this preliminary compilation had been made, and it was thought best to issue the exhibits in this form until such time as all questions of fact should be finally determined and estimates re-checked, when a revision and re-arrangement could be undertaken if deemed advisable for the purposes of a report.

In certain phases of our work, as in the pumping questions, the services of a specialist would have saved much time and labor. This matter has been given our best judgment from the facts in hand, but it may be well, before these questions are finally passed upon, to have them authoritatively determined.

It is now one hundred days since January 14th, the date of our credentials. It was the wish of the Board of Trustees that the investigation should be conducted, so far as practicable, with the forces of the Sanitary District and at the minimum cost. Considering these facts and the state of the information necessary to this investigation, the work has been done as quickly as possible with reasonable assurance of accuracy, and much labor has been required of your Committee which could not have been anticipated.

The officials and employes of the Sani-

tary District have been called upon for information and labor, which has been most cheerfully furnished, and the employees directly assigned to this duty or engaged for this service have been unremitting and faithful in their work.

There are appended hereto, six tabulations which are designed to develop more clearly the special relation of the Sag Valley and the Calumet Northern Canal routes

and the relative significance of gravity and pumping propositions.

Very respectfully submitted,

(Signed) LYMAN E. COOLEY,

(Signed) AMBROSE V. POWELL,

(Signed) LOUIS P. FRIESTEDT.

*Engineers, Committee of Five.*

CHICAGO, April 28, 1901.

TABLE NO. 1.  
SUMMARY OF COST OF THE SEVERAL SCHEMES.  
Cost in \$1,000. Volume in 1,000 Cubic Feet.

SCHEME NUMBER.	Total Volume.	Chicago River Improvement.	COST (NORTHERN CANAL).			Alternative. Sag Valley.
			Construction.	Pump.	Total.	
1.....	896	Radical ....	\$ 30,713	\$ 3,887	\$ 34,600	33,834
	887	Inlet.....	20,552	3,887	24,439	23,673
2.....	829	Moderate...	\$ 23,562	\$ 2,711	\$ 26,273	40,224
	816	(Pumping)..	30,726	7,460	38,186	36,893
3.....	816	Official.....	\$ 25,064	\$ 2,732	\$ 27,796	34,535
	796	(Pumping)..	22,604	7,682	30,286	31,813
3.....	806	Substitute..	\$ 26,288	\$ 2,740	\$ 29,028	34,764
	811	(Pumping)..	24,911	7,609	32,520	35,961

The Thirty-ninth Street Conduit flows by gravity in Scheme No. 1, and in the first given above for Schemes No. 2 and No. 3; otherwise by pumping as noted.

The Calumet Flood Diversion, \$300,000, in common to all schemes; likewise, the North Shore Canal, the North Branch Improvement and Lawrence Avenue sewer outfall, aggregating \$3,248,755 for construction and \$1,161,827 for pumping. The total is \$4,710,582.

The cost as given for the combination involving the Calumet Northern Canal is net, after deducting the saving due to change of plan and location.

The combination involving the Sag Valley Canal, Schemes No. 2 and No. 3, carry from 50,000 to 90,000 feet more than the Calumet Northern combination, but the volume is less than for Scheme No. 1, in Scheme No. 3, and substantially the same in Scheme No. 2.

TABLE NO. 2.  
COMPARISON OF CANALS—CALUMET NORTHERN VS. SAG VALLEY.

*Calumet Northern Canal.*

Summit Junction to Calumet Pier light, 17.41 miles.

From Sag Junction by way of Summit, 28.53 miles.

PROPOSITION.	Volume.	Cost.	Deduction.	Net Cost.	Per Cubic Foot.
A.....	599,100	\$18,084,973	\$2,000,000	\$16,084,973	\$26 85
B.....	497,120	14,531,777	1,350,000	13,181,777	26 52
E.....	895,330	18,115,618	2,000,000	16,115,618	26 38
F.....	277,080	10,039,991	1,350,000	8,689,991	31 36
J.....	322,020	11,694,541	2,000,000	9,694,541	30 72
K.....	228,600	9,458,634	1,350,000	8,108,634	35 47

*Sag Valley Canal.*

Sag Junction to Calumet Pier light, 27.24 miles.

PROPOSITION.	Volume.	Cost.	Per Cubic Foot.
C.....	688,926	\$30,226,360	\$43 87
D.....	579,620	22,086,048	38 09
G.....	465,180	18,122,250	38 96
H.....	331,020	13,407,618	40 50
L.....	364,420	15,774,715	41 03
M.....	277,500	11,665,154	42 04

The Sag Valley Canal costs some 40 per cent more per unit of water than the Calumet Northern Canal.

TABLE NO. 3.

## PUMPING COMPARISON.

*Calumet Northern Canal and Thirty-ninth Street Conduit.*

All Gravity.

PROPOSITION.	Volume.	Net Cost of Canal.	Per Cubic Foot.
A.....	689,194	\$16,745,108	\$23 20
E.....	426,000	11,775,658	27 64
J.....	352,790	10,554,676	29 92

Includes cost of completing conduit.

*Gravity Canal and Pumping by Thirty-ninth Street Conduit.*

PROPOSITION.	Volume.	Cost Pumping.	Net Cost of Canal.	Net Total.	Per Cubic Foot.
B.....	626,000	\$7,285,383	\$13,181,777	\$20,630,190	\$33 79
F.....	405,960	7,459,933	8,688,991	16,390,954	40 12
K.....	357,480	7,489,933	8,108,834	16,052,512	44 91

Includes cost of completing conduit and improving South Fork (\$162,080); also, K, enlarging Channel to Summit (\$341,715).

The combination by gravity canal and by pumping through Thirty-ninth Street Conduit costs some 40 per cent. more per unit of water than the all-gravity proposition.

TABLE NO. 4.

## COMPARISON OF GRAVITY AND PUMPING.

*Thirty-ninth Street Conduit.*

Cost of conduit complete \$1,429,703.

Gravity proposition only for circulating South Fork.

PROPOSITION.	Volume.	Cost per Cu. Ft.
Scheme No. 1, Radical Improvement.....	25,200	\$ 56 73
Scheme No. 1, Inlet.....	31,540	45 23
Scheme No. 2, (A).....	40,094	35 63
Scheme No. 3, (E and J).....	30,770	46 46

*Pumping Proposition (Calumet Northern Canal).*

128,880 feet per minute.

	Scheme No. 2.	Scheme No. 3.
Gross capital, station and yearly charge.....	\$ 6,491,078 00	\$ 6,645,623 00
*Same for gravity conduit, deduct.....	1,315,825 00	1,215,825 00
Excess over gravity proposition.....	5,275,248 00	5,429,798 00
Volume in excess of gravity, feet.....	88,786 00	98,110 00
Cost per cubic foot.....	59 42	55 34

\*The deduction is the gross capital, \$1,865,825, less \$650,000, which measures the superior benefit in the change of plan due to the Northern Canal.

The charge for pumping is apparently lessened by the deduction on account of the intercepting sewers which require independent pumping service in gravity propositions.

The gravity conduit costs less per unit of volume than the extra volume supplied by pumping.

TABLE No. 5.

## COMPARISON OF GRAVITY AND PUMPING.

*Tunnels and Inlet, Sixteenth Street.*

Tunnels (5) by gravity, volume in feet.....	\$ 237,800 00
Tunnels, estimated cost.....	4,486,078 00
Cost per cubic foot.....	17 40
Extra volume by pumping.....	288,800 00
Extra cost, station and pumping.....	8,623,700 00
Cost per cubic foot, extra volume.....	22 18
Inlet, by gravity, volume.....	626,600 00
Inlet, estimated cost.....	4,799,114 00
Cost per cubic foot.....	7 66

The cost per unit for the inlet is much less than by gravity tunnels, and the cost by gravity tunnel is less than that of the extra volume due to pumping.

TABLE NO. 6.

## NORTH SHORE COMPARISON.

*North Shore Canal vs. Lawrence Avenue Conduit.*

Conduit, gross capital, completing.....	\$ 2,713,604 00
Cost per unit; volume, 37,000 feet.....	73 34
North Shore Canal.....	\$ 3,681,760 00
Lawrence Avenue sewer outfall.....	1,008,400 00
	\$ 4,690,160 00
Cost per unit; volume, 62,000 feet.....	65 97

## EXPERT COMMISSION.

CHICAGO, January 17, 1901.

## PROJECT OF INVESTIGATION.

The work may be segregated generally in three divisions: as the Sanitary District, the Calumet and the North Shore. The solution of the North Shore does not affect the solution of the other two, but the Sanitary District and the Calumet are related in some schemes.

## SCHEME NO 1.

*Independent Solution for Each Division.**Sanitary District—By the Main Channel,*

or outlet, and by the Chicago River, developed to the full capacity of the completed channel below Summit, no improvement to impair the usefulness of public waters, the Thirty-ninth Street conduit operating by gravity.

*Calumet—By the Illinois and Michigan Canal, with pumping works of a capacity of some 60,000 cubic feet per minute, in connection with flood water diversion of the Calumet; said canal to be extended to a junction with the Calumet River, either by the route through Sag Valley to the Calumet River near Blue Island, or from a*

point near Summit southeasterly through Lake and Hyde Park Townships to the Calumet River between Ninety-eighth and One Hundred and Fourteenth Streets.

*North Shore*—By canal, with pumping works of a capacity of some 60,000 cubic feet per minute, located through the low ground west of Evanston and Niles Prairie, for the purpose of flushing the North Branch and furnishing an outfall for the sewage of the North Shore.

*Alternative*—Moderate improvement of Chicago River through heart of city in conjunction with by-pass or channel across the South Side at the most economical point south of Sixteenth Street.

Both the above propositions to consider, also, the Thirty-ninth Street conduit operated by pumping works to a capacity of 120,000 cubic feet per minute.

#### SCHEME NO. 2.

*Sanitary District and Calumet*—Moderate improvement of the Chicago River and gravity flow by Thirty-ninth Street conduit, the flow through the river not to exceed the reasonable limit for navigation; the remaining volume to be furnished by a branch gravity channel through the Sag Valley via Blue Island and by the improvement of the Calumet River, with flood water diversion as before. A change in the Calumet, from Wildwood to the outlet of Lake Calumet, may be expedient.

*Alternative*—By branch gravity channel from the main outlet near Summit, southeasterly across Lake and Hyde Park Townships to the Calumet River between Ninety-eighth and One Hundred and Fourteenth Streets.

Both the above propositions to consider, also, the Thirty-ninth Street conduit with pumping works and a capacity of 120,000 cubic feet per minute.

#### SCHEME NO. 3.

*Sanitary District and Calumet*—The Chicago River to be improved for a width of 200 feet, and for such depth as may be reasonably practicable and not less than that of the Sanitary Canal. This is virtually the adopted project. The remaining volume to be taken through the branch channel to the Calumet, substantially as outlined under Scheme No. 2.

*Alternative*—River to be improved for a width of 180 feet, with condemnation of wharf rights through heart of city: the remaining volume to be taken as above.

*General Remarks*—Estimates to be made for each of the three schemes, said estimates to include the capitalized cost at 4% of operating and maintaining pumping works. The cost of completing the Controlling Works at Lockport and any work required at Joliet to pass the full volume of water, is to be added to each scheme. Any liability on account of the Illinois and Michigan Canal is to be added to Schemes 2 and 3.

Any work remaining to be done in the Main Channel to comply with the requirements of the State Board of Inspection, or by way of completing or protecting the channel as thus provided, or in connection with the river diversion in the Desplaines Valley, or by existing contracts, is not to be included in the foregoing estimates, but is to be exhibited separately as current work in progress or contemplated.

*Definition*—A "moderate improvement" of the Chicago River is construed to mean the equivalent of the best that is practicable at the by passes and in the vicinity of Van Buren Street.

#### SCHEME NO. 1.

##### GENERAL INTRODUCTION.

The problem is segregated generally in three divisions, with special features of relation, as the Sanitary District, the Calumet District, and the North Shore District.

##### *Sanitary District*—

By Main Channel, or Outlet, and by the Chicago River, enlarged to the full capacity of the completed channel below Summit, no improvement to impair the usefulness of public waters: the Thirty-ninth Street Conduit to be operated by gravity.

##### *Alternative*—

Moderate improvement of the Chicago River, from Lake Michigan to Seventeenth Street, in conjunction with an inlet adjacent to Sixteenth Street on the south, from Lake Michigan to the river at Seventeenth Street.

##### *Calumet District*—

By the Illinois and Michigan Canal with pumping works of a capacity of 60,000 cubic feet per minute, in connection with flood water diversion, said canal to be extended to the Calumet River from a point near Summit southeasterly



across the townships of Lyons, Lake and Hyde Park to the Calumet near One Hundred and Fourteenth Street; or, from a point near Sag Station through the Sag Valley to the Calumet near Blue Island.

#### North Shore District—

By canal with pumping works of a capacity of 60,000 cubic feet per minute, located through the low ground of the Evanston-Niles prairie, from the North Branch near Bowmanville to Lake Michigan, in the village of Wilmette, for the purpose of flushing the North Branch and providing an outfall for the sewage of the North Shore.

All estimates are compared on the basis of gross capital, which is the actual cost plus capitalization at 4 per cent of all leases, operating expenses and maintenance.

The North Shore problem is related to that of the Sanitary District in that the outfall for all its drainage is by the North Branch and thence by the Chicago River and Main Channel, or outlet, of the Sanitary District. It is further related in the fact that the substitution of the North Shore Canal for the Lawrence Avenue Conduit as a means of flushing the North Branch is an important economy, if the necessity for the North Shore solution is admitted.

The Calumet problem is independent with the solution by Illinois and Michigan Canal extension through the Sag Valley, but by the northern route certain material economies are effected by changes of plan in the sewer system of the city, and in the Thirty-ninth Street Pumping Station.

#### RESUME OF ESTIMATES—GROSS CAPITAL.

ITEM.	Radical Improvement.	Moderate Improvement Inlet.
Chicago River and Main Channel.....	\$22,862,879	.....
Chicago River, Inlet and Main Channel.....	.....	\$ 12,701,753
Thirty-ninth Street Conduit.....	2,660,135	2,660,135
Calumet Northern Canal and Flood Diversion, net liability.....	4,666,460	4,666,460
Lawrence Avenue Sewer Outfall.....	1,328,822	1,328,822
North Shore Canal.....	3,061,760	3,061,760
Total estimate.....	\$34,600,056	\$ 24,438,932

The Sag route gives an apparent decrease of \$766,406 on each of the above estimates. The amount depends on what special value is assigned to the northern route in its relations to the sewer systems within the limits of the Sanitary District of Chicago.

The above cover the obligations under existing agreements between the City and the Sanitary District. For the Lawrence Avenue Conduit and the improvement of the North Branch, these amount to a gross capital of \$3,064,028. Their value for the Thirty-ninth Street Conduit have

not been ascertained. The total is a legitimate deduction from the estimates.

#### SCHEME NO. 1—PART I.

##### INTRODUCTORY SUMMARY.

The Sanitary District of Chicago was constituted by vote of the people at the general election in November, 1889, under an act passed by the General Assembly of Illinois in May, 1889.

The common outlet has been constructed from a junction with the South Branch of the Chicago River at Robey Street to and through the Desplaines Valley to the Controlling Works near Lockport, a distance of 28.08 miles. Said outlet has been substantially completed for a distance of 20.37 miles below Summit; the reach in earth from Summit to Willow Springs, 5.40 miles, with a width of 202 feet on bottom and side slopes of 2 to 1; the reach in rock, 14.87 miles, with a width of 160 feet on bottom and nearly vertical sides, and a depth of 24 feet, more or less, as the channel may be fed. The reach in earth from Robey Street to Summit, 7.76 miles, has a bottom width of 110 feet with side slopes of 2 to 1 and is intended for enlargement. All bridges are swing or bascule, to be put in operation in 1907.

The capacity with 24.4 feet depth at Willow Springs is, Lake at Chicago datum,  
in feet per minute..... 836,280  
At mean Lake level, 1.6 feet above datum. 911,160  
At high Lake level, 3.2 feet above datum.. 989,880

Collateral work and adjuncts, consist of the River Diversion, Joliet reach, improvement of Chicago River, the Thirty-ninth Street conduit and the Lawrence Avenue conduit.

The River Diversion needs a small amount of work to complete same and restrict all Desplaines flood waters down the valley.

The improvement of Chicago River consists of changes in dock lines and dredging, in which the United States has co-operated, and the building of by-passes and new bridges. The by-passes and the new bridges determine the "Moderate Improvement" of the river.

The Thirty-ninth Street conduit is building by the city, under certain agreements with the District, for the purpose of circulating the South Fork and providing a water supply for the Main Channel.

The Lawrence Avenue conduit is also building by the city, under certain agreements with the District, for the purpose of circulating the North Branch.

The area in square miles is..... 185  
The population, by census of 1900, is 1,637,972  
The valuation, equalized for purposes of taxation for 1900, is..... \$369,387,109 00  
The expenditures by the Sanitary District to Dec. 31, 1900, for all purposes were..... 35,182,845 94

The expenditures on adjuncts by the City of Chicago on same date were..... 855,856 00

The obligations for work done, work under contract and work required to complete existing projects, are..... 1,757,638 75

The above includes new contracts let since January 1, but does not include value of claims pending in court, capitalization for swing bridges, outstanding agreements with the City of Chicago and administration for 1901. The statement is intended to fill the gap between expenditures made and the estimate of this commission.

The general project is intended to develop the full capacity of the Main Channel without injury to Chicago harbor, all water to be furnished through the Chicago River and certain adjuncts.

The radical improvement of the river throughout provides for a width of 360 feet and a depth of 26 feet from Robey Street to Twelfth Street; 300 feet width by 30 feet depth, with masonry docks, from Twelfth to Lake Street, and 300 feet by 26 feet from Lake Street to Lake Michigan.

The estimate is \$22,862,879.00.

Completing Main Channel.....\$ 1,616,900 00  
River, Robey to Seventeenth Street. 5,236,397 00  
River, Seventeenth Street to Lake Michigan ..... 16,009,582 00

The moderate improvement and inlet provides for a moderate improvement from Seventeenth Street to the Lake and an inlet adjacent to Sixteenth Street on the south; otherwise, the same as for radical improvement.

The estimate is \$12,701,755.00.

Completing Main Channel.....\$ 1,616,900 00  
River, Robey to Seventeenth Street. 5,236,397 00  
River, Seventeenth Street to Lake Michigan..... 1,049,344 00  
The inlet ..... 4,799,114 00

The Thirty-ninth Street conduit, operated by gravity, will change the South Fork once in 16.7 hours, or 13.3 hours for the inlet treatment. The estimated cost to complete, provide pumping station and capitalized operation, is \$2,660,185.00.

The Lawrence Avenue conduit is to be completed as a sewer outfall and the circulation of the North Branch is provided through the North Shore Canal. The estimated cost to complete, provide pumping station, capitalized operation, and improvement of North Branch, is \$1,328,822.00.

The total gross capital is:

Radical improvement and adjuncts.\$26,851,836 00  
Inlet treatment and adjuncts..... 16,590,712 00  
Of which the City of Chicago is obligated for..... 1,644,310 00

The local service is fully provided for, so that all sewage, by means of intercepting sewers and

the Thirty-ninth Street conduit and the Lawrence Avenue conduit, and by the circulation of the South Fork and North Branch, shall reach the Chicago River and the Main Channel. The adoption of the Northern Calumet Canal route would change the solution for the southern part of the District.

The supplement to exhibit deals with collateral questions.

Maps and diagrams show proposed dock lines of Chicago River and location of Sixteenth Street Inlet.

All as shown herein in greater detail.

CHICAGO, March 22, 1901.

#### SANITARY DISTRICT.

The Sanitary District of Chicago was constituted by vote of the people at the general election in November, 1889, under "An Act to Create Sanitary Districts and to Remove Obstructions in the Desplaines and Illinois Rivers, and the Dams at Henry and Copperas Creek." approved May 29, 1889; in force July 1, 1889.

The District, as organized, contains a land area of 185 square miles, and embraces the City of Chicago, except that portion lying in the townships of Calumet and Hyde Park south of Eighty-seventh Street on the south, and that portion lying in the townships of Evanston and Norwood Park on the north; also, the town of Cicero and the township of Lyons east of the Range line, 12-13, and eight sections west of said line.

The population of the District, by census of 1900, is 1,637,972, fractional divisions being estimated.

The equalized valuation for purposes of taxation, by assessment of 1900, is \$269,287,109.

#### THE MAIN CHANNEL, OR COMMON OUTLET.

A Main Channel, or Common Outlet, has been constructed from Robey Street, the junction of said channel, or outlet, with the South Branch of the Chicago River, to the Desplaines River, near Lockport, a distance of 28.03 miles.

The bottom of the channel is 24.45 feet below datum at Robey Street; thence the declivity is 1-40000 for 13.16 miles to Willow Springs where the bottom is 26.2 feet below datum; thence the declivity is 1-20000, through rock cutting for 14.87 miles, to the Controlling Works where the bottom is 30.1 feet below datum. The depth is primarily determined by the capacity of the feeding channel between Robey Street and Lake Michigan and the resulting elevation of the water surface at Robey Street. Incidentally it depends on the volume of flow as it may be regulated at the Controlling Works.

The dimensions in rock cut between Willow Springs and Controlling Works, 14.87 miles, are 160 feet at bottom, with nearly vertical sides of rock and masonry, and 162 feet at surface. Be-

tween Willow Springs and Summit, 5.40 miles, the bottom is 202 feet wide, with side slopes of 2 to 1, and the sides are paved in certain localities and a rip-rap wash-berm is projected. Between Summit and Robey Street, 7.76 miles, the present width is 110 feet on bottom with side slopes of 2 to 1, and is designed for progressive enlargement with the needs of the district, and all bridges have been built to conform to an enlarged channel. All bridges are swing bridges, those on the rock out giving the full channel opening, and they are to be put in operation at some future time.

#### COLLATERAL WORK AND ADJUNCTS.

As a measure of construction the Desplaines River was relocated for some 13 miles in a course of 20 miles opposite the channel and restrained to the west side of the valley by embankments, and some slight work upon these will force all flood waters from this source to pass down the valley. Certain work has been done on the declivity between the Controlling Works and Lake Joliet, some 8 miles, to enable the passage through Joliet of flood waters and the flow from the Main Channel.

Certain work has also been done on the Chicago River by correcting the dock line at the worst places and the stream has been deepened by dredging, in which the United States has co-operated; and by-passes have been made and new bridges erected.

The city has undertaken certain adjuncts by mutual agreement with the Sanitary District. The Thirty-ninth Street conduit is designed to furnish a water supply, in addition to its functions as an outfall for the South Side intercepting sewer system and as a means of circulating the South Fork. The city undertakes to construct the work and the Sanitary District to operate the same and to improve the South Fork. The Lawrence Avenue conduit is building under a similar arrangement, for the circulation of the North Branch, the District to operate the works and improve the river. The completion of these adjuncts and the intercepting sewer system pertaining thereto, removes all sewer outfalls from the lake front from the northern city limits to Eighty-seventh Street, near the mouth of the Calumet.

#### EXPENDITURES.

The expenditures of the Sanitary District to December 31, 1900, for all purposes, are \$35,182,-845.94.

The expenditures of the City of Chicago on the conduits on Thirty-ninth Street and Lawrence Avenue, to December 31, are \$855,856.00.

#### FURTHER WORK AND LIABILITIES.

The liabilities for work already done, the work under contract and that necessary to complete

existing projects and not otherwise presented, are as follows:

Outstanding obligations, December 31, 1900, based upon the approximate estimates of construction contracts and bridge capitalization.....	\$1,080,000 00
Capitalization at 4 per cent of leases (\$3,058,84) of railway property near Van Buren Street.....	76,458 50
New contracts let, January 1 to March 1, 1901.....	393,445 25
Canal Street bridge....	\$128,135 40
Main Street bridge....	127,338 95
Ashland Avenue bridge.....	126,742 90
Grading roadbed, Section K.....	2,058 00
South Fork, removing rock.....	9,170 00
Estimate to complete existing project.....	207,735 00
Dredging Main Channel.....	10,500 00
Riprapping Berm, Summit to Willow Springs	124,735 00
River Diversion, completing .....	12,500 00
Joliet, rock in basin, 15,000 yds. at \$4.00 ..	60,000 00
Total, not otherwise accounted for.....	\$ 1,757,638 75

In addition, are obligations on account of certain agreements with the City of Chicago, which are elsewhere presented.

The above does not include administration for 1901.

(NOTE—Claims pending in court of which the value is unknown, \$1,935,239.50).

(NOTE—Swing bridges on Main Channel; cost of operating machinery, and capitalization for maintaining same and for operating bridges as swing bridges when bridges are swung in 1907, is unknown).

#### THE GENERAL PROJECT.

The Main Channel or Outlet, is now completed (except some berm riprapping) from Summit to the Controlling Works. It is proposed to complete the channel to Robey Street on an enlarged section and so develop the river thence to the lake, in conjunction with certain inlets, as to produce the water supply required to feed the Main Channel to its full capacity without injury to navigation in Chicago harbor.

A certain supply will be furnished at South Fork junction near Ashland Avenue by means of the Thirty-ninth Street conduit from the lake to Halsted Street slip and thence by said slip and the South Fork. The conduit will operate by gravity under a head produced by the declivity

in the main stream from the Lake to South Fork junction.

A certain other supply will be received at the main forks from the North Branch by means of pumping works in conjunction with the proposed canal through the Evanston-Niles prairie from Lake Michigan at the Village of Wilmette to the North Branch at Lawrence Avenue, and the improvement of the river thence to Belmont Avenue. Incidentally the Lawrence Avenue conduit (or intercepting sewer outfall) and the Fullerton Avenue conduit may also supply water. The flood volume of the North Branch is also a large temporary supply.

All the water required that is not furnished by these adjuncts is to be provided through the river radically enlarged and improved from the lake to South Fork junction, and thence sufficiently to carry the entire volume to the head of the Canal at Robey Street.

As an alternative to the radical improvement of the river through the down-town district an inlet is proposed adjacent to Sixteenth Street on the south and extending from Lake Michigan to the river at Seventeenth Street, in conjunction with a "moderate improvement" of the river from the lake to Seventeenth Street. Otherwise the project is the same.

#### CRITERIA.

When the scheme of investigation was projected and scheduled the capacity of the Main Channel when fully completed was not known, as direct measurements had only been made for determining the actual volume flowing and to check the co-efficients for the Controlling Works. It was assumed, however, that a radical improvement would produce such a depth in the Main Channel—24 feet and upwards at Willow Springs—as to give a capacity of 730,000 feet per minute, and this figure was used provisionally.

The limiting velocity was taken (provisionally) at 1.75 feet per second (1.193 miles per hour) on the net section, found by deducting bridge piers and submerged mid-ship section of the standard boat.

The standard boat was taken at 434 feet on keel, 474 feet over all, 50 feet beam, and 30 feet draft, with submerged mid-ship section of 1,000 square feet.

The capacity of river is the net section multiplied by the limiting velocity. In determining the net section at bends the projection of the boat (determined by aid of deck plan) is deducted.

The pier obstructions, in the aggregate, were not to exceed 30 feet in width. In the commercial reaches of the river two boats will frequently lie at opposite docks, thus reducing the net section as above given by the difference between

2,000 square feet and the cross-section of bridge piers.

Thirty-ninth Street conduit to supply water at South Fork junction by gravity.

The capacity at main forks and thence southward to be in excess of maximum flow from North Branch.

#### SPECIFICATIONS.

##### RADICAL IMPROVEMENT THROUGHOUT.

The Main Channel, Summit to Robey Street, to be completed with a bottom width of 220 feet east of curve at Summit, change in width to be on curve.

The river, Robey to Seventeenth Street, to be 360 feet between dock lines; sheet pile-docking; depth, 18 feet at dock line, increasing to 26 feet at 25 feet out below hydraulic grade; swing-bridges, with piers not exceeding an aggregate of 30 feet in width; all piers at safe depth, 30 feet or more below hydraulic grade; masonry wall in special locations.

The river, Seventeenth Street to Lake Michigan: From Seventeenth to Twelfth Street, to be same as from Robey to Seventeenth; Twelfth to lake, to be 300 feet wide between dock lines and 30 feet deep below hydraulic grade, with dock of concrete masonry on pile foundations where required; from Lake Street to Lake Michigan, to be 300 feet wide between sheet-pile docks, the depth to be 18 feet at dock line and 26 feet at 25 feet out; bridges to be as above for river from Robey to Seventeenth Street, except bascules for Van Buren Street, Metropolitan "L" and Jackson Street.

##### CAPACITY AND HYDRAULIC GRADE.

Within the past two weeks the results of special observations made since this Commission was organized, and other relevant data, has enabled an approximate determination of co-efficients by which to determine the capacity of the Main Channel under the conditions specified. To determine these matters finally, however, requires a special set of observations under better weather conditions, and with the canal operated for this purpose.

The lake is assumed at datum, or "low water of 1847." The resulting depth at Willow Springs is 24.4 feet, and the capacity 836,350 cubic feet per minute. The hydraulic grade at characteristic localities (gauge points) is as follows:

	Distance	Elevation
Lake Michigan.....	0.00	0.00
Seventeenth Street.....	3.37	-0.31
S. F. Junction.....	5.37	-0.34
Robey Street.....	6.02	-0.38
Summit.....	13.60	-1.14
Willow Springs.....	19.28	-1.90
Lockport.....	34.06	-5.70

The volume received by way of the South Fork and the Thirty ninth Street conduit will be 25,200 feet per minute; that from the North Branch is taken at 100,000 feet.

The velocity through the river from Twelfth Street to the junction will be 1.83 feet per second, or 1.85 miles per hour, figured on the net section—bridge piers and standard boat going up stream deducted.

The velocity through the river from Lake Street to Twelfth Street, figured on the net section, will be 1.90 feet per second, or 1.30 miles per hour; from Lake Michigan to Lake Street, 2.21 feet per second, or 1.50 miles per hour.

The capacity of the Main Channel at mean lake level (1871-95), taken at 1.6 feet above Chicago datum, will be 911,160 cubic feet per minute.

The capacity at high water taken at 3.2 feet above datum will be 969,280 cubic feet per minute. The lake ranges above this mark in a cycle of years as long as it ranges below Chicago datum.

#### ESTIMATE.

Main Channel, Summit to Robey Street, 7.65 miles; and Controlling Works:

Excavation, 2,551,892 yds. at 22 cts.....	\$ 561,401
Excavation, 3,414,630 yds. at 28 cts.....	956,094
Additional land for spoil banks, 48.2 acres.....	49,405
Controlling Works, completing.....	50,000

Total.....\$ 1,616,900

River, Robey Street to Seventeenth Street (13,990 feet), 2.65 miles:

Real estate, 2,197,168 square feet.....	\$ 2,091,791
Improvements.....	889,000
Docking, 20,278 feet.....	506,950
Excavation, 3,515,596 yards.....	794,936
Bridging, eight (Ashland and Main, alterations only).....	844,800
Special, gas tanks, railway tracks, lumber, etc.....	158,920

Total.....\$ 5,236,397

The aggregate is divided as follows:

Robey Street to Junction, 2,940 feet.....	\$ 408,044 00
Junction to Halsted Street, 5900 feet.....	1,807,669 00
Halsted Street to Seventeenth Street, 5,150 feet.....	3,020,684 00
River—Seventeenth Street to Lake Michigan, (17,833 feet), 3.37 miles.	
Real estate, 1,749,312 feet.....	\$ 8,025,836 00
Improvements.....	2,480,630 00
Docking, 13,905 feet concrete masonry.....	\$2,174,743 00
Docking, 10,907 feet ordinary dock.....	250,175 00
	2,424,917 00

Excavation, 2,605,763 yards.....	822,799 00
Bridging, 18 (C. T. T. Ry. and Taylor, alterations only).....	2,232,800 00
Special, railway tracks.....	22,800 00
Total .....	\$ 16,009,582 00

The aggregate is divided in reaches as follows:

Seventeenth Street to Twelfth Street, 3,676 feet .....	\$2,411,710 00
Twelfth Street to Van Buren Street 3,594 feet .....	4,917,627 00
Van Buren Street to Lake Street, 3,284 feet.....	6,263,260 00
Lake Street to Rush Street 3,870 feet.....	1,516,641 00
Rush Street to Lake Michigan, 3,400 feet.....	910,344 00
Summary, \$22,862,879.00:	
Completing Main Channel .....	\$ 1,616,900 00
River, Robey to Seventeenth Street 5,236,397 00	
River, Seventeenth to Lack Michigan.....	16,009,582 00

The additional cost of completing the improvement for a depth of 30 feet with masonry docks, from Lake Street to Lake Michigan is exhibited in the supplement.

#### THE TUNNELS.

The floor or pavement levels of the several tunnels are as follows:

La Salle Street.....	—33.07
Washington Street.....	—33.20
Van Buren Street Railway.....	—37.75

The lowering of the tunnels to a depth of 30 feet below hydraulic grade is substantially a problem of entire reconstruction. No estimate has been made.

#### ALTERNATIVE.

##### Moderate Improvement of River and Inlet.

The river to be "moderately improved" from the Lake to Seventeenth Street and an Inlet constructed adjacent to Sixteenth Street on the south, from the lake to the river at Seventeenth Street.

#### SPECIFICATIONS.

A "moderate improvement" is the equivalent of what may be had at the by-passes in the vicinity of Van Buren Street and at the two new bascule bridges at and in the vicinity of Taylor Street. By making every practicable change at bridge openings the available sections will be as follows (widths taken normal to the vessel course):

BRIDGE.	Opening.	Section.	By-pass.	Total.
Adams Street.....	82x24.4	2000	800	2800
Jackson Street.....	87x25.0	2000	800	2800
Metropolitan "L".....	108x20.0	2120	800	2920
Van Buren Street.....	100x20.0	2000	800	2800
Taylor Street.....	120x23.3	.....	.....	2800
Chicago Terminal Railway.....	120x23.3	.....	.....	2800

The net section, after deducting 1,000 feet for standard boat, is 1,800 square feet, which, at the limiting velocity, gives a capacity of 189,000 feet per minute, or 190,000 feet in round numbers.

The equivalent at the other points to be determined by aid of the deck plan of the standard boat so as to give a minimum net section of 1,800 square feet.

The tunnels are to be lowered so as to give a minimum depth of 24½ feet below hydraulic grade.

The inlet is to be located adjacent to Sixteenth Street on the south, entering the river at Seventeenth Street. It is to be 80 feet in width between walls of concrete masonry and 25 feet in depth with concrete bottom, the lake entrance to extend between timber piers to 20 feet of water. Bridging to be of metal and concrete, of full width of streets, and channel to be covered under railway yards. The right of way to be generally 120 feet wide, and the entire work to be finished in a slightly manner with half a street (40 feet wide, more or less,) on the south.

Controlling works to be provided near the lake and for the purpose of regulating the flow through the inlet when required.

#### CAPACITY AND HYDRAULIC GRADE.

The resulting depth at Willow Springs is 24.2 feet and the capacity is 897,040 cubic feet per minute. The hydraulic grade at characteristic localities (gauge points) is as follows:

	Distance	Elevation
Lake Michigan.....	0.00	0.00
Inlet, Seventeenth Street....	3.37	-0.43
S. F. Junction.....	5.37	-0.55
Robey Street.....	6.02	-0.59
Summit.....	13.60	-1.33
Willow Springs.....	19.28	-2.00
Controlling Works.....	34.05	-5.90

The water supply in feet is as follows:

From Thirty-ninth Street conduit via South Fork.....	31,540
From the Inlet.....	626,600
Through river.....	168,900

The velocity in river, Seventeenth Street to junction, figured on net section, will be 1.78 feet per second, or 1.21 miles per hour. The velocity in the "moderate improvement," figured on net

section, will be 1.56 feet per second, or 1.06 miles per hour.

The velocity in the "moderate improvement" will be temporarily increased when necessary to care for excessive floods from the North Branch by the operation of the Controlling Works.

#### ESTIMATE.

Moderate improvement, Seventeenth Street to Lake Michigan, 3.87 miles:

Real estate, 124,054 square feet.....	\$ 552,696
Improvements.....	104,000
Docking, 4,478 feet.....	111,325
Excavation, 1,182,812 yards.....	278,623
Bridging.....	000
Special, railway tracks.....	3,000
Total.....	\$1,049,344

The aggregate is divided in reaches as follows:

Seventeenth to Twelfth Street, 3.675 feet.....	\$ 271,191
Twelfth to Van Buren Street, 3.594 feet.....	609,133
Van Buren to Lake Street, 3,284 feet....	36,797
Lake to Rush Street, 3,870 feet.....	69,969
Rush to Lake Michigan, 3,400 feet.....	62,254

The inlet, Lake to river, 0.75 miles:

Real estate and improvements.....	\$1,891,239
Construction, 3,900 feet at \$365.05.....	1,423,695
Basin, 3,900 feet crib piers at \$72.00....	280,800
Basin, dredging 96,000 yards.....	14,400
Bridging.....	888,980
Special, piling under walls, etc.....	250,000
Controlling Works.....	100,000
Total.....	\$4,799,114

Summary, \$12,701,755:

Completing Main Channel.....	\$1,616,900
River, Robey to Seventeenth Street.....	5,236,397
River, Seventeenth Street to Lake Michigan (moderate improvement)...	1,049,344
The Inlet.....	4,799,114

The tunnel lowering is not estimated.

#### THE THIRTY-NINTH STREET CONDUIT.

In this consideration, the Thirty-ninth Street conduit is a gravity proposition and is treated as an adjunct of the Main Channel for the purpose of circulating the contents of the South Fork, the flow to be produced by the difference in head between the lake and the junction near

Ashland Avenue, due to the declivity in the main river.

This conduit is constructing by the City of Chicago from an intake on the lake shore to the head of Halsted Street slip, and is 12,123 feet, or 2 2/96 miles, in length and 30 feet inside diameter. Some 6,320 feet were completed to December 31, 1900, at a cost of \$635,393, and the remainder is 5,803 feet, to be completed not later than June 1, 1902, at an estimated cost of \$794,810.

The declivity in the main river, for the radical improvement throughout, as computed, is 0.34 feet and this, assuming no slope in the South Fork, is the head in the conduit, producing an estimated flow of 25,200 feet per minute, or sufficient to displace the entire contents of the Slip and South Fork from the mouth of the conduit to the junction, some two miles, once in every 167 hours. With the "moderate improvement" of the river from the lake to Seventeenth Street and the Sixteenth Street inlet, the declivity, as computed, is 0.55 foot, producing a flow of 31,540 feet per minute, or sufficient to displace the contents once in every 13.8 hours.

The intercepting sewer system is designed to cover the district from Thirty-first Street to Eighty-seventh Street, and provides for a maximum volume in storm time of 78,000 feet per minute and the ordinary dry weather flow of 8,880 feet per minute. By agreement the City of Chicago is to provide a pumping station of a minimum capacity of 40,000 cubic feet per minute and said station, together with the conduit and appurtenances, becomes the property of the Sanitary District and are to be maintained and operated by said District, and any increase in capacity is to be provided by said District.

The plans for this station contemplate the shutting off of the flow of lake water during the period of storm water pumping, but during the dry weather pumping the conduit is practically a fairway for Lake water flow. The following estimate contemplates the maximum capacity, as the intermittent character of the service gives sample reserve except for a very limited period. The yearly charge is based on operation for the purpose of the intercepting sewer system only. The manner in which this is determined is set forth in the Supplement.

The storm water is to be lifted from the level of 8 feet below datum to mean lake level, 1.6 feet above datum, plus the head in conduit, taken, on the basis of formula used by the Chief Engineer of Intercepting Sewers, at 3.50 feet; a total lift of 13.1 feet. The dry weather flow is to be lifted from 16.25 feet below datum to mean lake level at 1.60 feet above datum, or a total of 17.85 feet. The price of coal is taken at \$3.25 per net ton.

The estimates are as follows:

Yearly charge for operation and maintenance —\$60,633.

Yearly charge, capitalized at 4 per cent.....\$1,515,825  
Cost of station and appurtenances..... 250,000  
Completing conduit..... 794,810

Gross capital.....\$2,560,135

Amount expended to December 31, 1900—\$635,393.

This conduit as originally projected by the Pure Water Commission (see majority report in Proceedings of City Council, March 1, 1897,) was to have a diameter of 11 1/4 to 12 1/4 feet as required for a sewer outfall, its use for flushing being incidental until such time as public policy might determine the filling up of the South Fork.

For agreements and ordinances, see Appendix No. 6.

#### THE LAWRENCE AVENUE CONDUIT.

In this consideration, the Lawrence Avenue Conduit is to be regarded solely as an outfall for the intercepting sewer system on the lake front between the north city limits and Lincoln Park, the circulation of the North Branch from Lawrence Avenue to the Main Forks in the heart of the city being more advantageously accomplished through the agency of the North Shore Canal.

The conduit as now constructing by the City of Chicago is 14,026 feet, or 2.657 miles, in length and 16 feet inside diameter, and is to be operated by a pumping station at the North Branch. Some 4,371 feet were completed to December 31, 1900, at a cost of \$220,463, and the remainder is 9,655 feet, to be completed by December 31, 1902, at an estimated cost of \$604,756 for conduit, intake and regulating works, and an additional sum for the pumping station.

As a sewer outfall only, a change in plan is expedient. From data furnished by the Chief Engineer of Intercepting Sewers, the maximum volume is taken at 22,500 feet per minute, and the following estimate is based on an 11-foot outfall sewer from Sheridan Road to the North Branch:

Outfall sewer, 12,776 feet, at \$25 .....\$319,400  
Pumping station ..... 150,000  
Miscellaneous and contingencies..... 20,600  
Total estimate.....\$500,000

The improvement of the North Branch from Lawrence Avenue to Belmont Avenue by the Sanitary District requires an easement over 2.16 miles, estimated at \$120,000, and the dredging of 863,510 yards, at 20 cents, or \$172,702, and bridging, \$27,720; a total of \$320,422.

The pumping lifts are as follows:

	Storm.	Dry Weather.
Below datum, Sheridan Road.....	1.75	1.75
Fall in conduit.....	6.34	6.34
Mean lake level.....	1.60	1.60
Stage in North Branch, say.....	2.31	0.50
Ordinary stage in conduit below high water grade.....		4.81
Total lifts.....	12.00	15.00

The price of coal is taken at \$2.25 per net ton.

Yearly charge for operation and maintenance.....\$ 90,336

Yearly charge, capitalized at 4%.....\$ 508,400  
Completing conduit on change of plan. 350,000  
Pumping station..... 150,000  
Improvement of North Branch..... 290,422

Gross capital.....\$1,328,822  
Amount expended to Dec. 31, 1900.... 290,463

The conduit, as originally projected by the Pure Water Commission (see majority report in Proceedings of City Council, March 1, 1897), was to have a diameter of  $8\frac{1}{4}$  to 9 $\frac{1}{2}$  feet, as required for a sewer outfall, its use for flushing being incidental until other provision for circulating the North Branch had been made.

For agreements and ordinances, see Appendix No. 6.

#### FULLERTON AVENUE CONDUIT.

This Conduit is 12 feet inside diameter and extends from the lake to the North Branch on Fullerton Avenue, and has furnished the only circulation, except land water, in the North Branch since 187—. "The cost is about \$23,000 per annum and the amount of water pumped supposed to be about 15,000 cubic feet per minute" (letter Com. Pub. Works, Feb. 19, 1901). New propeller pumps of increased efficiency are about to be installed.

#### THE TWO PROPOSITIONS.

Both propositions involve gravity solutions except as to the intercepting sewers. The aggregate gross capital is as follows:

Radical improvement of the river  
throughout.....\$94,851,836  
River Inlet and Main Channel..... 22,862,879  
Thirty-ninth Street Conduit..... 2,600,135  
Lawrence Avenue Conduit..... 1,328,822  
Moderate Improvement of the River  
with 16th Street Inlet..... 16,690,712  
River and Main Channel..... 12,701,735  
Thirty-ninth Street Conduit..... 2,600,135  
Lawrence Avenue Conduit..... 1,328,822

There are sundry deductions from above due to the changes in existing projects, but as these are covered in the Exhibits for other schemes

and in the Supplement, their presentation is no especially called for in this connection.

Obligations.....\$3,988,957  
Construction, City of Chicago..... 1,644,310  
Pumping and Improving North Branch,  
Sanitary District of Chicago..... 2,344,647

#### THE LOCAL SERVICE.

Except as the conditions might be changed by the adoption of the Northern Calumet route in respect to the territory within the Sanitary District and south of Sixtieth Street and south of and adjacent to the proposed line, the local service remains substantially unchanged.

#### MAPS AND DIAGRAMS.

The accompanying maps, in three sheets (scale 200 feet to the inch), show the proposed dock lines along the Chicago River, from the end of the Main Channel at Robey Street to Lake Michigan, and the location of the proposed Inlet adjacent to Sixteenth Street on the south. Diagrams showing cross-section of dock walls and of the inlet are also shown.

#### APPENDICES.

There are appended hereto the following:

A supplement dealing with collateral questions.

1. Flow exhibit; opening of Canal to March 31, 1901.
2. Computed flow by gravity—Thirty-ninth Street Conduit and the inlet.
3. Memoranda: Coefficients used in computing capacity and hydraulic grade.
4. Navigation of Chicago River.
5. The federal permit.
6. Agreement between Sanitary District of Chicago and City of Chicago.

The maps and diagrams hereinbefore described

#### SUPPLEMENT SANITARY DISTRICT.

Collateral questions and matters of incidental interest have been reserved for separate treatment.

#### YEARLY CHARGE PUMPING STATIONS.

The method herein outlined for computing the proper yearly charge for pumping stations is primarily designed to give results that are relatively correct for the several stations and conditions presented in scheme No. 1 and in other schemes. A rule for general application would require the service of specialists, if it could be framed at all, in view of the limited experience with modern machinery in handling enormous volumes of water on low lifts. It is believed that the yearly charge, for the conditions given in each case, will not be found seriously in error.

Two standards are used:

1. Perpetual service: This involves the main-



tenance of a stipulated volume of water with the same certainty as a gravity flow, and calls for a reserve of one unite. A station is to have four units with three in constant service, three units with two in constant service, etc.

2. Intermittent service: This involves the handling of a variable volume, as in intercepting sewer systems where the maximum is occasionally or where the regular service is but a fraction of the total capacity. The provision for the maximum gives ample reserve under all ordinary working conditions.

Stations: Low lift (1 foot-10 feet), using 2,000 tons of coal and upward per year, Chicago and vicinity.

Test duty: As given by specifications or by duty trial in million foot pounds per 1,000 pounds of steam, taken herein uniformly at 75,000,000.

Working duty: Average operation for year taken at 80 per cent of test duty; coal efficiency (Illinois or equivalent) taken at 7 pounds of steam and at 212 degrees. Actual working duty taken at 56 per cent of test duty, or at 42,000,000 per 100 pounds of coal.

(S) Cost of Station. To include machinery, boilers and foundations, bays, screens and gates; buildings and generally everything appurtenant and necessary to operation—real estate omitted.

(T) Coal Consumption. For the year of 360 days, determined from the foot pounds of work divided by the foot pounds of service in one net ton of coal. The pumping head is taken from channel of approach to channel of delivery, outside of station and appurtenances.

(C) Price of Coal. Illinois coal, or equivalent, at \$2.15 to \$2.40 per ton, in the bunkers.

The relative yearly charge for operation and maintenance is formulated as follows:

$$\text{Yearly Charge} = 6.23\% S + 100 \sqrt{T} + \left( \frac{11 C}{10} + \frac{1}{2} \right) T.$$

The above yearly charge includes an annuity of 3.23 per cent, for renewals; this at 4 per cent, equals the investment in twenty years.

The above rule is for perpetual service. For intermittent service, as with intercepting sewer stations, the following modifications are employed:

Assume storm services to be equivalent to the maximum for a total of thirty days and compute coal for the storm lift. Assume dry weather flow for 330 days and compute coal for dry weather lift. The sum is taken as the equivalent of total coal for the year. Compute yearly charge on total coal and cost of station as before and add the following:

$$5 \sqrt{S}.$$

Capital Charge. The sum which put at interest at 4 per cent, will yield the yearly charge.

Gross Capital. The sum of the capital charge and the cost of station, together with the cost of

such other works as form part of the system; to be used in comparing projects.

#### THE LAWRENCE AVENUE CONDUIT.

The estimate for completing same on present plans, \$954,556.00:

Conduit (9,535 feet) .....	\$511,185 00
Intake and regulating works.....	93,571 00
Pumping Station at North Branch.....	349,800 00

The cost of station as estimated by the City of Chicago is \$233,200.00 (letter of Commissioner of Public Works, February 19, 1901) without reserve. The above estimate adds 50 per cent for reserve in order to insure perpetual service.

The pumping head in feet is 8.80:

Below datum, Sheridan Road.....	1.75
Loss of head in conduit.....	4.95
Slope in North Branch .....	0.50
Mean Lake, 1871-95.....	1.60

The first two items are from letter cited above. The slope in the North Branch is estimated for dry weather conditions, neglecting floods.

The volume provided for is 87,000 cubic feet per minute, and includes 2,000 feet of sewage, as given in letter above cited.

Price of coal taken at \$2.25 per ton.

The yearly charge, computed for the above conditions, is \$79,362.00.

The capital charge at 4 per cent is \$1,759,050 00

Gross capital, \$3,034,028.00:

Conduit and Pumping Works, completing .....	\$ 954,556 00
North Branch, improvement.....	340,423 00
Capital charge, pumping.....	1,759,050 00

The gross capital for the work completed and operated as a sewer outfall only, as set forth in the body of this Exhibit, is \$1,336,322.00.

#### CHICAGO RIVER—RADICAL IMPROVEMENT.

Lake Street to Lake Michigan, 7,270 feet.

An estimate has been made of the additional cost of improving this portion of the river to a depth of 30 feet, with docks of concrete masonry, as follows:

Dredging, additional, 428,262 yards .....	\$ 93,156
Docking, concrete, 13,254 feet.....	\$2,072,925
Docking, sheet-pile, 5,892 feet .....	147,300
	<hr/> 1,925,625

Total additional cost..... \$2,018,781

#### THE TAIL RACE, JOLIET.

Any estimate for additional work for the purpose of passing the total volume, including land waters, from the vicinity of the Controlling Works, through the City of Joliet to Lake Joliet, is common to every scheme and will be presented in Scheme No. 2.

## APPENDIX NO. 1.

## FLOW EXHIBIT.

*The Average Weekly Rate in Cubic Feet Per Minute.*

First (I.). Through the Illinois and Michigan Canal.

Second (L.). Through the Main Drainage Channel.

Third (C.). Through the Chicago River.

Fourth (R.). Through the Desplaines River at Riverside.

Fifth (J.). Through the Desplaines River at Joliet.

(Compiled by E. L. Cooley.)

WEEK ENDING	No. of Week	I. & M. Canal at Bridgeport.	Main Channel near Lockport.	Chicago River.	Desplaines River at Riverside.	Dam No. 1, Joliet.
1900—		I.	L.	C.	R.	J.
Jan. 6 .....	1	44,305	.....	44,305	1,320	41,625
Jan. 13 .....	2	37,700	.....	37,700	2,781	40,481
Jan. 20 .....	3	36,981	55,569	92,550	8,984	100,634
Jan. 27 .....	4	25,605	210,293	235,998	17,567	253,465
Feb. 3 .....	5	24,586	161,905	186,491	8,704	193,195
Feb. 10 .....	6	46,557	67,971	134,528	72,634	207,162
Feb. 17 .....	7	35,324	157,233	192,557	34,296	216,863
Feb. 24 .....	8	36,681	194,155	230,896	15,188	246,024
Mar. 3 .....	9	38,633	117,269	150,902	14,880	165,782
Mar. 10 .....	10	40,593	149,539	190,134	15,351	205,485
Mar. 17 .....	11	45,606	105,906	151,511	199,577	251,068
Mar. 24 .....	12	36,067	144,807	180,874	79,637	260,511
Mar. 31 .....	13	30,095	113,586	143,681	121,289	264,970
First quarter, average of 10 weeks.....		35,475	144,266	179,741	59,912	239,653
April 7 .....	14	33,709	135,440	169,149	52,012	221,161
April 14 .....	15	27,924	193,189	221,113	16,183	237,296
April 21 .....	16	37,228	134,630	171,868	24,094	193,962
April 28 .....	17	26,957	199,487	226,444	14,417	240,861
May 5 .....	18	37,843	147,093	184,936	8,837	184,793
May 12 .....	19	35,614	189,999	225,613	8,223	233,906
May 19 .....	20	28,672	176,827	204,499	2,460	206,939
May 26 .....	21	30,086	220,256	240,342	506	247,848
June 2 .....	22	30,643	227,234	247,877	17	247,894
June 9 .....	23	22,352	203,531	225,823	4,350	230,223
June 16 .....	24	26,119	163,168	190,067	2,846	192,923
June 23 .....	25	19,805	195,094	214,589	171	213,070
June 30 .....	26	24,272	203,537	227,799	8	227,807
Second quarter, average of 13 weeks.....		27,948	183,729	211,577	9,939	221,516
July 7 .....	27	20,538	199,725	220,263	.....	220,263
July 14 .....	28	31,143	192,096	223,246	168	224,434
July 21 .....	29	29,586	204,891	234,477	257	234,734
July 28 .....	30	23,505	193,394	217,199	2,005	219,204
Aug. 4 .....	31	21,190	239,679	237,869	1,568	239,437
Aug. 11 .....	32	20,695	224,612	245,507	694	246,201
Aug. 18 .....	33	23,467	225,534	247,001	1,837	248,536
Aug. 25 .....	34	26,224	167,338	193,462	7,896	200,855
Sept. 1 .....	35	26,140	247,077	273,387	63,657	336,244
Sept. 8 .....	36	26,648	134,496	161,44	30,094	191,228
Sept. 15 .....	37	26,495	117,813	144,306	11,306	155,514
Sept. 22 .....	38	24,643	65,398	80,181	4,046	84,827
Sept. 29 .....	39	25,805	210,389	236,194	2,448	238,643
Third quarter, average of 13 weeks.....		25,141	185,176	210,817	9,492	220,009
Oct. 6 .....	40	26,357	259,926	296,283	1,371	297,654
Oct. 13 .....	41	23,714	193,175	216,889	1,320	218,209
Oct. 20 .....	42	23,081	193,764	216,845	1,820	218,165
Oct. 27 .....	43	23,909	187,610	211,519	1,320	211,589
Nov. 3 .....	44	23,528	198,328	221,856	3,874	225,730
Nov. 10 .....	45	22,413	223,521	235,964	5,340	241,304
Nov. 17 .....	46	21,662	223,546	246,208	4,594	250,802
Nov. 24 .....	47	21,476	241,199	262,675	15,317	277,992
Dec. 1 .....	48	23,086	235,625	258,911	19,638	278,539
Dec. 8 .....	49	23,162	224,214	247,376	10,723	258,099
Dec. 15 .....	50	23,124	234,375	257,499	6,600	264,159
Dec. 22 .....	51	11,457	241,646	258,108	4,800	267,908
Dec. 29 .....	52	.....	223,123	223,123	3,960	227,083
Fourth quarter, average of 13 weeks.....		20,615	230,020	250,635	6,171	256,806

WEEK ENDING	No. of Week	I. & M. Canal at Bridgeport	Main Channel near Lockport.	Chicago River.	Desplaines River at Riverside.	Dam No. 1, Joliet.
1901—		L	L	C.	R.	J.
Jan. 5.....	1	.....	278,860	C=L	2,600	282,460
Jan. 12.....	2	.....	317,717	.....	2,743	320,460
Jan. 19.....	3	.....	232,794	.....	5,687	237,861
Jan. 26.....	4	.....	315,396	.....	6,396	321,792
Feb. 2.....	5	.....	317,368	.....	3,600	320,968
Feb. 9.....	6	.....	294,693	.....	3,600	298,295
Feb. 16.....	7	.....	316,214	.....	2,572	318,786
Feb. 23.....	8	.....	307,695	.....	2,400	310,295
Mar. 2.....	9	.....	299,161	.....	2,400	301,561
Mar. 9.....	10	.....	314,063	.....	16,650	330,713
Mar. 16.....	11	.....	350,723	.....	258,669	615,392
Mar. 23.....	12	.....	288,938	.....	256,846	545,784
Mar. 30.....	13	.....	303,738	.....	209,062	512,800
First quarter, average of 13 weeks..	.....	.....	303,736	.....	59,508	363,244

## DESPLAINES RIVER WATERSHED ABOVE DAM NO. 1, JOLIET.

683 sq. mi., above the spillway (just below Riverside).

84 sq. mi., Riverside to Dam No. 1, Joliet.

111 sq. mi., tributary to I. &amp; M. Canal, from Bridgeport to Lockport.

828 sq. mi., total watershed above Dam No. 1, Joliet.

## EXHIBIT—SCHEME No. 1, PART I.

## APPENDIX NO. 2.

## COMPUTED FLOW BY GRAVITY.

*The Thirty-ninth Street Conduit.*

The formula used by the Chief Engineer of the Intercepting Sewer Systems, Mr. Wm. S. MacHarg, is Kutter with  $n=0.018$ , and is based on the experience with the Fullerton Avenue Conduit.

The length is 12,123 feet and the inside diameter is 30 feet. The capacity, in feet per minute, is given for the head in feet in conduit in the following table:

Head in feet.	Feet per minute.
0.1.....	14,837
0.2.....	19,774
0.3.....	23,846
0.4.....	27,247
0.5.....	30,235
0.6.....	32,931
0.7.....	35,411
0.8.....	37,719
0.9.....	39,888
1.0.....	41,942
1.1.....	43,896
1.2.....	45,765
1.3.....	47,559
1.4.....	49,287
1.5.....	50,954

*The Inlet.*

Adjacent to Sixteenth Street on the south. Length, 8,900 feet; taken at 3,960 feet, or three-quarter mile, for purpose of computation. Channel, 80x25, =2,000 square feet. Co-efficient in Chezy formula taken at 127.16, corresponding to  $n=0.018$

in Kutter. The capacity of feet per minute is given for the head in feet in inlet, to the nearest thousand feet, in the following table:

Head in feet.	Thousand feet per minute.
0.1.....	301
0.2.....	425
0.3.....	521
0.4.....	601
0.5.....	672
0.6.....	736
0.7.....	795
0.8.....	850

## EXHIBIT—SCHEME 1, PART No. I.

## APPENDIX NO. 3.

Memoranda: Co-efficients used in computing capacity and hydraulic grade.

As the variations of hydraulic radius are not great, the Chezy formula was used. The co-efficients are deduced from the best evidence obtainable respecting actual flow conditions in the several classes of sections available, in part from special data determined for the use of the Expert Commission, C is for slope per foot, and D for slope per mile.

	C	D	Reach.
Rock cut.....	116.36	1.6	Below Willow Springs.
Earth cut.....	109.00	1.5	Large section, Robey Street to Willow Springs.
Earth cut.....	97.00	1½	Small section Robey Street to Summit.
Chicago River.	87.19	1.2	Radical improvement, Scheme No. 1.
Chicago River.	72.66	1.0	Official plan, Scheme No. 3.

No attempt was made to determine a co-efficient for the "moderate improvement," owing to the great irregularity of the river and its many obstructions. The slope values were assigned from a study of actual slopes in relation to volume flowing. From four days observations in June, 1900, were deduced results for 190,000 feet, and four days in January, 1901, gave results for upward of 300,000 feet.

With the aid of these determinations for the Chicago River, and the co-efficients above given, the hydraulic grades for the several sections projected in the Schemes 1, 2 and 3, were computed.

#### APPENDIX NO. 4.

##### NAVIGATION OF CHICAGO RIVER.

###### *Views of Vessel Men.*

Q. What is the first obstruction in entering Chicago River from Lake Michigan?

A. Illinois Central Railroad Bridge.

Q. Why is the Illinois Central Railroad Bridge an obstruction?

A. Because it is near the mouth of the harbor where incoming vessels accumulate waiting for a dock, and outgoing vessels await consorts being loaded and unloaded, thus congesting this part of the harbor. Besides, the bridge protection is very low and liable to wreck the wheels of sidewheel steamers being below their guards.

Q. What would be your remedy?

A. Removal. The bridge has not been in use for a year or more; obsolete.

Q. What is the next obstruction?

A. State Street bridge.

Q. Why is this an obstruction?

A. Having passed through Rush Street bridge the river bends to the south about its own width in a distance of 400 feet, causing a vessel to make a sharp turn under a starboard wheel and then a port wheel. To enter State Street draw during this manouever the current strikes the starboard quarter, causing the stern to swing to port and bow to starboard, throwing the vessel at times across the river, doing severe damage.

Q. What would be your remedy?

A. Straighten this bend by cutting back the south abutment of Rush Street bridge, or the north abutment of State Street bridge, or both. Replace the present center pier bridge with a bascule bridge, giving more room for swinging.

Q. Where is the next greatest obstruction?

A. LaSalle Street tunnel.

Q. In what way is this an obstruction?

A. An insufficiency of water.

Q. What is the depth of water on LaSalle Street tunnel?

A. Seventeen feet, two or three inches, and that depth is only gained by crossing from the south draw of Wells street to the north draw of Clark Street.

Q. What would be your remedy?

A. Lower or remove the tunnel.

Q. How much or what depth of water does the modern freight steamer require?

A. Nineteen to twenty feet to be equal to other ports and channels.

Q. Where is the most serious obstruction?

A. Lake Street bridge.

Q. In what way is this an obstruction?

A. The river turns into the South Branch forming nearly a right angle. To make this turn a steamer must stop and back, and in doing this the current is liable to swing the steamers up the North Branch or turn the vessel around.

Q. What is your remedy?

A. Replace the present bridge with a bascule bridge having 160 or 170 feet in the clear, which will be needed to overcome this sharp turn.

Q. What is the next obstruction?

A. Washington Street tunnel.

Q. Why so?

A. Insufficiency of water, there being but about 16 feet, 6 inches, whereas vessels full loaded will draw 18½ to 19 feet.

Q. What is your remedy?

A. Lower the tunnel or abolish it.

Q. What is the next obstruction?

A. Harrison Street bridge; there being a bend in the river at this point, and the river narrow, the bridge should be removed and replaced with a bascule bridge, cutting back the west abutment, widening or straightening the river thereby.

Q. What is the next difficulty encountered?

A. The entire river, from Harrison to Twelfth Street, being too narrow and too many center pier bridges.

Q. What should be the remedy?

A. Widen the river 75 to 100 feet and replace center pier bridges with bascule type.

Q. Where is the next trouble?

A. At Twelfth street.

Q. In what way is Twelfth Street troublesome?

A. Immediately south of Twelfth Street the

river bends sharply to the east, and turns and bends should be avoided where possible.

**Q. What would be the remedy?**

**A.** Cut back the east abutment 25 or 30 feet, making the bend more gradual.

**Q. What should be the next improvement?**

**A.** Begin at or near the City Elevator south of Twelfth Street, west side of river; cutting back the bank; widening the river 40 or 50 feet to a point or elbow, about 300 feet south of Armour's Elevator E, where a sharp bend in the river exists. At this point, leave the west bank and cross over to the east bank, beginning 300 or 400 feet south of the railroad bridge and cut into the east bank gradually until the railroad bridge is reached, when it should be cut back at least 50 or 60 feet, widening and straightening the river at this difficult and dangerous place. Follow the east bank, cutting to widen the river, until a point 300 or 400 feet south of Eighteenth Street.

**Q. Then what?**

**A.** Cross over to the west bank, cutting the west abutment of Eighteenth Street Bridge back 40 or 50 feet to both widen and straighten the river. At Eighteenth Street a sharp bend and narrow river prevents vessels of more than 340 feet from going through.

**Q. What is the remedy?**

**A.** Cut back the west bank of the river to the required width, until within about 200 feet of Canal Street Bridge, when the river should be crossed to the east bank, cutting back the east abutment of Canal Street 40 or 50 feet to partially straighten this crook and continue this cut on the east bank, making the river the required width until at or near the Nebraska Elevator, when the river should again be crossed to the west bank. Here is another sharp crook called Collision Bend from the number of accidents occurring at this point.

**Q. How should this point be treated?**

**A.** Cut back this point 50 or 60 feet on the west or north side of the river, running to nothing at the north end of Halsted Street bridge. (The river having changed its general direction we will substitute north for west and south for east, as the river runs nearer east and west.) Crossing over to the south side of the river 200 to 300 feet east of Halsted Street, begin at nothing, cutting back about 40 or 50 feet the south abutment of Halsted Street bridge, coming out at the east end of the Keith Elevator at nothing.

**Q. What do you next recommend for improving the river?**

**A.** From Halsted Street to the east or north end of the Drainage Canal the river runs in a west southwest direction without any severe crooks, and but little is to be recommended be-

yond the widening of the river, which should be from Halsted Street west 300 feet at least. With this increased width many of the crooks can be worked out and the river sufficiently straightened. All bridge openings should not be less than 150 feet in the clear.

The principal disturbing elements to Chicago River commerce at the present time is in the order named, current, tunnels, bridges and bends. The first three are well understood, the last may need explanation. When a ship moving against the stream making a bend the current's full force is on one bow, none upon the other, in fact the other is in a vacuum. This forces the vessel to one side, which can only be overcome by a powerful tug or stopping the steamer, drift in alongside of the dock where it can be done, and then getting bow or stern on to the stream (current on both bows) the ship can again be started more safely.

Going with the current is hampered with kindred difficulties, risks, delays and damage.

**(Signed)**

J. C. Keith, ship agent and owner.  
 Robt. J. Dunham, ship agent and manager.  
 J. J. Rardon, ship agent and owner.  
 C. H. Sinclair, ship agent and owner.  
 Lasler & Hooper, grain shippers.  
 Alex. Gades, grain shipper.  
 Wade, Thorburn & Co., grain shippers.  
 Geo. A. Seaverns, grain shipper.  
 John Prindiville, vessel agent.  
 Homer H. Peters, grain shipper.  
 Milman Bodman Co., grain shippers.  
 Richardson & Co., grain shippers.  
 Patton Bros., grain shippers.  
 Brown Co., vessel agents.  
 J. H. Coleman, "Steamer New Orleans."  
 Jas. E. Green, "Steamer Seranta."  
 Philip Broderick, "City of Venice."  
 W. Williams, "Tuscarora."  
 Captain P. O'Neill.  
 D. Driscoll, "Wilkes Barr."  
 Geo. McMinn, master.  
 Walter Robinson, "Steamer Starucca."  
 Chas. A. Potter, "Steamer Saranac."  
 J. Halligan, "W. H. Galweck."  
 Jas. A. Maddigan, "L. C. Baldwin."  
 M. J. Galvin.  
 S. O. Day.  
 Geo. Graham, "H. E. Packer."  
 P. O'Neill, master.  
 J. Perew, master.  
 Jas. Cunningham, "Steamer C. F. Curtis."  
 Andrew Kelly, master.  
 Norton & Co., grain shippers.  
 Keith & Co., Chicago and St. Louis Elevators and Annex.  
 Irwin Green & Co., grain business.  
 Armour & Co., elevator proprietors and shippers.  
 W. M. Egan, vessel owner and agent.

Canada Atlantic Transit Company, G. J. Harris, E. W. Agent.

J. R. Sinclair, Local Manager Dunham Towing and Wrecking Company.

A. C. Johnson, Master "Tug J. C. Evans."

Geo. McElvey, Master "Tug Protection."

James E. Shea, Master "Tug Andrew H. Green."

G. S. Gadsden, General Agent Aetna Insurance Company.

A. E. White, Master "Steamer Nyanza."

C. B. Galton, Master "Steamer W. Soranton."

F. A. Flock, "Steamer Fedora."

H. W. Stone, "Steamer D. Haughton."

G. B. Mallory, "Steamer Manlton."

A. J. Greenlee, "Steamer Corsica."

E. T. Rattray, Rensselaer.

J. Harrington.

Chas. Hinslea, "Steamer Joliet."

Henry Peterson, "Steamer Harvard."

John M. Smith, "Steamer Vulcan."

Frank Rice, "Steamer Henry Cort."

W. J. Hunt, "Steamer James B. Neilson."

C. G. Ennes, "Steamer Empire State."

R. E. Byrns, "Steamer James B. Eads."

Otto F. Olson, Superior.

#### *To Protect Chicago River Navigation.*

A meeting of the Special Committee appointed to represent the Lake Carriers' Association in the matter of the protection of navigation interests against damage in Chicago river resulting from the operation of the Chicago Drainage Canal was to have been held in Philadelphia this week, but the meeting was found to be unnecessary. Mr. Frank J. Firth, chairman, acting for the committee, sent the following letter under date of March 18 to the Secretary of War:

"In further reply to your favor of February 28, 1901, I beg leave in response to your invitation to submit on behalf of the Lake Carriers' Association the following suggestions regarding supplemental orders or instructions to the local engineer officer at Chicago. We recommend:

"That you issue such supplemental order as will insure the restriction of the discharge of water through the Chicago Drainage Canal so that it shall not exceed 200,000 cubic feet per minute, and will not operate in any event to produce a current exceeding three-quarters of a mile per hour.

"That the United States Engineer at Chicago be instructed to supervise and insure the strict compliance with this order and to invite vessel owners and others interested to communicate promptly to him all cases where the order has not been observed, or where any modification of such order may be desirable in the interest of the safe and economical navigation of the Chicago river.

"That the early construction of controlling works at or near Robey Street be required, as this is essential to protect those navigating the

river from the sudden changes in depth of water and current that have been causing so much delay, damage and expense to vessel owners.

"That nothing be done that will in any way impair the existing right of the United States to make such further regulations as may hereafter be demanded in the interest of the safe and economical navigation of the Chicago river or of the maintenance of the general levels of the great lakes.

In view of the near approach of the opening of navigation for the lake season of 1901, we earnestly urge that the foregoing recommendations may receive your early and favorable consideration." (From Marine Review, March 21, 1901.)

#### APPENDIX NO. 5.

##### THE FEDERAL PERMIT.

WHEREAS, By Section 10, of an Act of Congress, approved March 3, 1899, entitled "An Act making appropriations for the construction, repair and preservation of certain public works on rivers and harbors, and for other purposes," it is provided that it shall not be lawful to alter or modify the course, location, condition or capacity of the channel of any navigable water of the United States unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of War prior to beginning the same; and

WHEREAS, The Sanitary District of Chicago, a municipal corporation organized under the laws of the State of Illinois, has constructed an artificial Channel from Robey Street, Chicago, to Lockport, and has been heretofore granted permission by the Secretary of War to make certain improvements in the Chicago River for the purpose of correcting and regulating the cross section of the river so as to secure a flowage of 300,000 cubic feet per minute with a velocity of one and one-quarter miles an hour, it being intended to connect the said artificial Channel with the west fork of the South Branch of the Chicago River at Robey Street, in the said City of Chicago; and

WHEREAS, The said Sanitary District of Chicago has now applied to the Secretary of War for permission to divert the waters of the said Chicago River and cause them to flow into the said artificial Channel at Robey Street as aforesaid; and

WHEREAS, The said Sanitary District of Chicago represents that such movable dams and sluice gates as are necessary to, at all times, secure absolute and complete control of the volume and velocity of flow through the Chicago River have been constructed.

Now, therefore, The Chief of Engineers having consented thereto, this is to certify that the Secretary of War hereby gives permission to the

said Sanitary District of Chicago to open the Channel constructed and cause the waters of Chicago River to flow into the same, subject to the following conditions:

1. That it be distinctly understood that it is the intention of the Secretary of War to submit the questions connected with the work of the Sanitary District of Chicago to Congress for consideration and final action, and that this permit shall be subject to such action as may be taken by Congress.

2. That if, at any time, it becomes apparent that the current erected by such drainage works in the South and Main Branches of Chicago River, be unreasonably obstructive to navigation or injurious to property, the Secretary of War reserves the right to close said discharge through said tunnel or to modify it to such extent as may be demanded by navigation and property interests along said Chicago River and its South Branch.

3. That the Sanitary District of Chicago must assume all responsibility for damages to property and navigation interests by reason of the introduction of a current in Chicago River.

Witness my hand this 8th day of May, 1899.

(Signed) R. A. ALGER,

*Secretary of War.*

(Signed) JOHN M. WILSON,

*Brig. Gen'l, Chief of Eng., U. S. A.*

[SEAL]

#### APPENDIX NO. 6.

#### AGREEMENTS BETWEEN SANITARY DISTRICT OF CHICAGO AND CITY OF CHICAGO.

*This Agreement, Made this eighteenth (18th) day of November, eighteen hundred and ninety-nine (A. D. 1899), between the City of Chicago, on the one part, and the Sanitary District of Chicago, on the other part; witnesseth, that,*

WHEREAS, On the thirty-first (31st) day of January, eighteen hundred and ninety-eight (A. D. 1898), the City Council of said City of Chicago passed an ordinance entitled "An ordinance to modify the plans of the Pure Water Commission, accepted March 1st, 1897," which said ordinance was thereafter, on the second (2nd) day of February, eighteen hundred and ninety-eight (A. D. 1898), duly approved by the Mayor of said City of Chicago; and,

WHEREAS, On the fourth (4th) day of February, eighteen hundred and ninety-eight (1898), the Board of Trustees of said Sanitary District of Chicago passed an ordinance wherein and whereby the said Sanitary District of Chicago accepted the conditions imposed upon said Sanitary District of Chicago by said ordinance of

said City Council of the City of Chicago and agreed specifically to carry out the terms thereof; copies of both of which said ordinances are herewith appended for the purpose of reference; and,

WHEREAS, The said City of Chicago is now engaged in carrying out the work shown and set forth upon and by said plans of the Pure Water Commission, as modified by said ordinance of January 31, 1898, and is about to construct certain pumping stations and intakes, and to complete the intercepting sewer system and the conduits therein proposed; and,

WHEREAS, Said ordinance of said City Council of the City of Chicago, passed January 31, 1898, authorizes the Commissioner of Public Works of said City of Chicago to enter into such contract or contracts on behalf of said City of Chicago with said Sanitary District of Chicago as shall be necessary to effect the result contemplated by said ordinance of the City Council of the City of Chicago.

Now, THEREFORE, In consideration of the premises and of the agreements of the parties hereto, each with the other, the said parties do covenant and agree as follows, that is to say:

First—The said City of Chicago covenants and agrees to complete said system of intercepting sewers and conduits, with such protecting piers, intakes for water from Lake Michigan, connections, discharge sewers and appliances as may be necessary thereto, and to complete said pumping stations and to equip them with the necessary machinery and fixtures and deliver to said Sanitary District of Chicago possession of said pumping stations (and the sites thereof), machinery and fixtures, intakes, protecting piers, connections, the conduit from Lake Michigan in Thirty-ninth (39th) Street to the South Branch of the Chicago River, the conduit from Lake Michigan in Lawrence Avenue through the Lawrence Avenue Pumping Station, hereinafter mentioned, to the North Branch of the Chicago River, and all appliances and apparatus used in connection therewith; one of the said pumping stations to be located at or near Thirty-ninth Street, in the City of Chicago, and to have a minimum pumping capacity of forty thousand (40,000) cubic feet of water per minute; another of said pumping stations to be located at or near Lawrence Avenue, in the City of Chicago, and to have a minimum pumping capacity of thirty-five thousand (35,000) cubic feet of water per minute.

Second—The said Sanitary District of Chicago covenants and agrees to take over from said City of Chicago said pumping stations (and the sites thereof), machinery and fixtures, intakes, protecting piers, connections, the conduit from Lake Michigan in Thirty-ninth (39th) Street to the South Branch of the Chicago River, the conduit from Lake Michigan in Lawrence Avenue through the Lawrence Avenue Pumping Station to the North Branch of the Chicago

River and all appliances and apparatus used in connection therewith, and thereafter permanently to hold, maintain and operate the same for the sole uses and purposes of said system of conduits and intercepting sewers, and to keep the same in good repair, and to make all necessary improvements therein, and to increase, as may be required, the capacity thereof at the sole cost and expense of the Sanitary District of Chicago.

Provided, however, that the conduit and pumping plants, and the sites and all plans therefor, and the intakes, shall, together with the necessary and requisite machinery and fixtures appertaining thereto, or in any wise belonging thereto, be provided, constructed and furnished in a manner satisfactory to said Sanitary District of Chicago at the sole cost and expense of said City of Chicago.

*In Testimony Whereof*, the said parties, the City of Chicago and the Sanitary District of Chicago, have respectively caused these presents to be executed by their proper officers and sealed with their corporate seals, duly attested, the day and year first above written.

#### ORDINANCES.

WHEREAS, The corporate authorities of the City of Chicago have provided for the construction of a system of intercepting sewers and conduits by ordinance passed by the Common Council of said city on the 31st day of January, A. D. 1898, and approved by the Mayor of said city on the 2d day of February, A. D. 1898, which ordinance is in words and figures as follows:

"An ordinance to modify the plans of the Pure Water Commission, accepted March 1st, 1897.

*"Be it ordained by the City Council of the City of Chicago:*

"SECTION 1. That the Commissioner of Public Works, in completing the system of intercepting sewers, for which tentative plans were heretofore made by the Pure Water Commission and accepted by the City Council March 1st, 1897, is hereby authorized to modify said plans by increasing the size of the Thirty-ninth Street and Lawrence Avenue conduits to the following dimensions, viz.:

"A 20-foot conduit on Thirty-ninth Street, from Lake Michigan to the Halsted Street slip.

"A 16-foot conduit on Lawrence Avenue, from Lake Michigan to the Chicago River.

"By changing the course of the Intercepting sewers intended for the drainage of the territory tributary to the Twelfth and Twenty-second Street sewers to or upon or in such other street or streets as in the judgment of said Commissioner shall be most effective to accomplish the object in view.

"By changing the gradients in such manner

and at such points as shall be deemed by said Commissioner most effective to accomplish the drainage proposed.

"By changing the location of the pumping stations as proposed or by locating any required pumping station at such point or points as said Commissioner shall deem advisable.

"By making such other changes in said tentative plans as the said Commissioner shall deem necessary to effect the success of said system or intercepting sewers.

"SECTION 2. The Commissioner of Public Works is also hereby authorized to turn over to the Sanitary District of Chicago all pumping stations and all machinery and fixtures connected therewith which shall be constructed to make said intercepting sewer system effective, upon the condition that thereafter said Sanitary District of Chicago shall permanently maintain said pumping stations and make all improvements and repairs and increase in capacity if any thereafter required, at the expense of said Sanitary District of Chicago; and it is also hereby authorized to enter into such contract or contracts on behalf of the City of Chicago with said Sanitary District of Chicago as shall be necessary to effect the above result.

"SECTION 3. This ordinance shall take effect and be in force from and after its passage."

*Now, therefore, be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

SECTION 1. That, in consideration of the terms and conditions of the above ordinance, and subject to the faithful compliance therewith by the said City of Chicago, and its corporate authorities, and all agents in its behalf, the condition imposed upon the Sanitary District of Chicago by said ordinance is hereby accepted, and the Sanitary District of Chicago hereby specifically agrees that, after the completion of said system of intercepting sewers and conduits and the completion and delivery to the Sanitary District of Chicago of said pumping stations and machinery and fixtures connected therewith, located respectively at a site to be agreed upon at or near Thirty-ninth Street, and with a minimum pumping capacity of forty thousand cubic feet of water per minute, and at a site to be agreed upon at or near Lawrence Avenue, and with a minimum pumping capacity of thirty-five thousand cubic feet of water per minute, the Sanitary District of Chicago will permanently maintain and operate said pumping stations and make all improvements and repairs and increase in capacity, if any thereafter required, at the expense of said Sanitary District of Chicago; provided, however, the pumping plants and the site and all plans therefor, and the intakes, shall be provided and constructed in a manner satisfactory to the Sanitary District of Chicago. The President and Clerk of the Board of Trustees are hereby authorized and



directed to enter into such contract or contracts on behalf of the Sanitary District of Chicago with said City of Chicago as shall be necessary to effect the above result.

SECTION 2. This ordinance shall take effect and be in force from and after its passage.

#### VERBAL AGREEMENTS.

It appears to be mutually understood by the officials of the Sanitary District and of the city, that additional pumping capacity is to be provided at the Thirty-ninth Street station, so that 120,000 cubic feet of lake water may be passed through the Thirty-ninth Street conduit at all times, as a supply to the Main Channel.

The letter of February 12, 1901, from the Commissioner of Public Works to the Chairman of this Commission, states:

"The conduit is to discharge 128,880 cubic feet per minute, being 120,000 cubic feet of lake water and the sewage from Thirty-first to Seventy-fifth Streets, and to discharge this quantity of water the head on conduit will be 9.8924 feet."

A letter of the Chief Engineer to the Attorney of the sanitary District under date of March 12, 1901 (copy furnished to the Commission), states that one-third of the cost of the Thirty-ninth Street plant is to be borne by the city.

Verbal statements are to the effect that the city is to provide such plant as is necessary to care for the intercepting sewer system, and that the Sanitary District is to pay for any additional plant required to increase the volume to 120,000 cubic feet of lake water per minute.

The President of the Board of Trustees mentions 120,000 cubic feet per minute as the volume provided by the Thirty-ninth Street conduit, in his annual message of December 3, 1900, page 6865 of the Proceedings of the Board.

It is ascertained that no specific agreement in writing has been made between the City of Chicago and the Sanitary District of Chicago other than above given.

#### SCHEME No. 1—PART II.

##### INTRODUCTORY SUMMARY.

The Calumet Sanitary District includes the townships of Hyde Park (south of Eighty-seventh Street) Calumet and part of Worth, Bremen and part of Thornton, County of Cook, with an area of 94.5 square miles.

The Indiana District, lying adjacent to the state line on the east, includes an area of 47.5 square miles in the townships of North and Calumet, County of Lake, the drainage of which is identified with that of the Calumet District in Illinois.

Common outlet, through an extension of the

Illinois and Michigan Canal via Sag Valley from Sag Station to the Little Calumet at Blue Island, in conjunction with the Calumet River; or by such extension via the "Northern Route" from a point near Summit southeasterly through the townships of Lake and Hyde Park to the Calumet Harbor near One Hundred and Fourteenth Street.

Canal to be operated by pumping works of a working capacity of 60,000 cubic feet per minute

Diversions of flood waters, an essential preliminary in any solution, and all such waters may be excluded from the proposed district by the diversion of Little Calumet to Lake Michigan in the State of Indiana, and by turning the drainage of Sag Valley westward, thus restricting the waters to be cared for to those within the district and the adjacent district of Indiana.

Population by U. S. census of 1900.....97,824  
And on adjacent Indiana district.....21,033

Equalized valuation for purposes of  
taxation by assessment of 1900.....\$15,177,428

#### Northern Sag Valley. Route.

Cost of canal and pumping works.....	\$2,043,004	\$4,809,410
Flood water diversion.....	300,000	300,000
Yearly charge for operating pumping works.....	(62,282)	(62,282)
Yearly charge capitalized at 4 per cent.....	1,557,050	1,557,050
Gross capital.....	\$3,900,054	\$6,666,480

The Sag Valley route permits the organization of a separate district with an independent solution.

The northern route pertains more properly to an auxiliary district or to annexation, and facilitates the solution of problems within the Sanitary District of Chicago.

Right of way is uniformly 660 feet wide, and provides for future development.

Supplement to exhibit deals with collateral questions, as the territory between Sixtieth and Eighty-seventh Streets.

Amendment to law; bill as drawn in 1897, providing for change in I. & M. Canal.

Map and diagrams show political divisions, topography and proposed work.

All as shown herein in greater detail.

CHICAGO, March 12, 1901.

#### CALUMET DISTRICT.

The territory to the south of the Sanitary District of Chicago and lying adjacent to the State of Indiana and in the basin of the Calumet River, can be provided with an outlet by means of an

extension of the Illinois and Michigan Canal from a point near Sag Station (C. & A. Railway) easterly through the Sag Valley to a junction with the Calumet River near Blue Island; or, by an extension of said Canal from a point near Summit southeasterly through the townships of Lake and Hyde Park to the Calumet near South Chicago; said canal to be operated by a pumping station. Extensive flood diversions are required to make such canal efficient. The solution may be entirely separate from that of the Sanitary District of Chicago, and thus permit the organization of an independent sanitary district; or, the territory may be organized as an auxiliary district; or, by amendments to the law, it may be annexed to the present District.

Any solution necessarily considers the territory adjacent in the State of Indiana.

#### PROPOSED DISTRICT.

The territory included is essentially urban and all within the "three mile limit," and susceptible of sewerage in a reasonable manner. The practicability of diverting all flood waters from the rural territory is an important consideration in fixing the limit. The boundaries are specifically described as follows:

Beginning at the southeast corner of the Sanitary District of Chicago in Lake Michigan at the State line of Indiana; thence west along the south line of said Sanitary District to a point two miles west of the range line between Range 18 East and Range 14 East; thence south along east line of Sections 8, 10, 15, 22, 27 and 34, Township of Worth; thence south and east so as to include Sections 1, 2, 11, 13 and 13, Township of Bremen; thence east along south line of Sections 18, 17, 16, 15, 14, 13, 12, 18 and 17, Township of Thornton to the State line; thence north along the State line between Illinois and Indiana to the point of beginning.

The territory is given by townships and in square miles as follows:

Proposed district, total, 94.48.

Hyde Park.....	31.88
Calumet.....	18.82
Worth, part of.....	12.13
Bremen, part of.....	5.80
Thornton, part of.....	26.85
(City of Chicago, 42.85 of above.)	

#### Population 1900.

By United States census, fractional divisions approximate.

Proposed district, total, 97,324.

City of Chicago, 73,200.

Calumet Township (outside Chicago), 6,162.

Blue Island, part.....	2,501
Morgan Park, part.....	2,157
Riverdale, part.....	320
Rural.....	1,184

Worth Township, part of, 5,405.

Blue Island, part.....	3,618
Morgan Park, part.....	172
Evergreen Park.....	445
Mount Greenwood, part.....	175
Rural.....	1,000

Bremen Township, part of; all rural, 400.

Thornton Township, part of, 12,157.

Riverdale, part.....	238
Dalton.....	1,229
Harvey.....	5,335
South Holland.....	766
West Hammond.....	2,935
Rural.....	1,594

Of the above population 4,178 is rural.

#### Equalized Valuation, 1900.

Proposed District, total, \$15,177,498.

Hyde Park Township (south, S. D. line).....	\$ 7,592,601
Calumet Township.....	4,025,150
City of Chicago.....	2,788,779
Village of Morgan Park.....	496,057
Village of Blue Island.....	323,419
Village of Riverdale.....	106,082
Rural.....	310,863

Worth Township, \$1,056,762.

Village of Morgan Park.....	185,731
Village of Blue Island.....	423,369
Village of Evergreen Park.....	200,045
Village of Mount Greenwood (ex. Sec. 25).....	94,806
Rural.....	192,911
Bremen Township, rural (School District No. 6).....	173,557
Thornton Township.....	2,339,358
Village of Riverdale, real estate.....	36,327
Village of Dalton, real estate.....	80,693
City of Harvey, real estate.....	542,662
Village of South Holland, real estate.....	57,469
Village of West Hammond, real estate.....	222,363
Rural, real estate.....	434,928
Personal and railway property in above.....	964,896

#### FLOOD DIVERSION.

The flood volume at Riverdale measured in February, 1887, was 800,000 feet per minute from 700 square miles, more or less. The extreme flood volume may exceed this, judging by the floods of the Desplaines River.

The drainage basin south of the Sanitary District of Chicago and covering the lake shore to the east line of the Township of Calumet, Lake County, Indiana, is 835 square miles, of which 473 are in Indiana and 362 in Illinois. The basin may be scheduled as follows:

Calumet Sanitary District .....	94.5	
Indiana District—Township of North, and Calumet north of divide.....	47.5	142
Sag Valley, west of proposed district.	96.0	
Little Calumet, south of proposed district .....	587.0	683
		825

Some 23 miles of the Sag Valley are ordinarily tributary to the Illinois and Michigan Canal, but in extreme flood the parting of the waters is indeterminate. The Grand Calumet drainage in the Township of Hobart is now practically cut off by the filling in of the Baltimore and Ohio Railway trestle near the east line of the Township of Calumet.

The essential preliminaries in any solution of the Calumet problem is the restriction of flood volume. It is practicable to fence out and include all upland and rural drainage by means of certain dykes and diversions and restrict the drainage that must be cared for by a canal to that within the proposed district and the adjacent district of Indiana. Most of this territory is low-lying and permeable with a considerable proportion of marsh and lake, from which a large and concentrated flood volume is not to be expected.

The Sag Valley diversion requires certain dykes on the west boundary and ditches to carry the drainage westward. Much of this drainage is now uncertain in either direction, some 23 miles being assigned to the Illinois and Michigan Canal in the dry season, and this project would fix the outlet for the entire 96 miles. The estimate for all work required may be taken at \$100,000, and this may also be assumed as a measure of special drainage problems for any canal located through the valley.

The Little Calumet diversion is to be effected by a cut  $1\frac{1}{4}$  miles long from the River to Lake Michigan, 2 miles east of the line between Lake and Porter counties, Indiana, and by the construction of a dam across the river on the south line of Section 13, Township of Thornton, and the construction of certain dykes on the southern boundary of the proposed district, and ditching to the south thereof; all of which will divert the entire basin outside the district, some 587 square miles, to Lake Michigan at a point  $17\frac{1}{4}$  miles due east of the state line.

The river bed is practically without declivity and may as well discharge floods through the new outlet as by the present course. When the feeder dam across the Calumet River at Blue Island was removed in May, 1874, the water was lowered entirely across Lake County and in Deep River, at the Village of Hobart, by 18 inches, some 35 miles by the course of the stream

above Blue Island. (See Report I. & M. C. Com., 1874—appended.)

The feeder dam was supposed to hold the waters at 11 feet above datum for the purpose of delivering water through the Sag feeder to the summit level of the I. & M. Canal at Sag bridge, at 8 feet above datum, but its use was discontinued after the completion of the I. & M. Canal deepening in 1871. The elevation of water at the dam at the time of removal is not ascertained.

The instrumental reconnaissance made for the commission by Assistant E. T. Eriksen on March 4, 1901, found the river at the proposed point at 7.4 feet above Lake Michigan. The diversion channel is to be located adjacent to the east side of Sections 26 and 25, T. 36 N., R. 7, W., Township of Portage, Porter County, Ind. A preliminary cut of 40 feet wide at lake level, and  $1\frac{1}{4}$  miles long, requires 400,000 yards of easy excavation; a right of way  $\frac{1}{4}$ -mile wide, a double-track railway bridge (L. S. & M. S. Ry.) 300 feet long, the Thornton dam and sundry dykes and ditches, all of which are estimated at \$200,000 in round numbers.

It is assumed that the preliminary cut will rapidly enlarge, and that the river will soon establish regimen in respect to the new outlet so that the Thornton dam may be made a permanent embankment.

#### THE INDIANA DISTRICT.

The area of the present drainage to the Grand Calumet and the shore opposite and the population thereon by census of 1900 are as follows:

Lake County, Ind., 47.5 miles; 21,033.	
North Township, 29 miles; 20,470.	
East Chicago.....	3,411
Hammond.....	12,376
Whiting.....	3,983
Rural, estimate.....	700

Calumet Township, 18.5 miles, rural est.; 563.

It will be noted that the Township of North extends less than 5 miles from the State line and that the entire population is substantially within two miles of Illinois.

#### SPECIFICATIONS FOR CANAL—SAG VALLEY ROUTE.

From the Illinois and Michigan Canal near Sag Station, (C. & A. Ry.) to the Little Calumet River near Blue Island; thence by river to Calumet harbor.

Right of way and location, to be  $\frac{1}{4}$  mile (660 feet) in width. To begin at I. & M. Canal and curve to center Section 13, T. 37 N., R. 11 E., thence easterly to range line 12-13,  $\frac{1}{4}$  mile north of south line Sections 24, 19; thence southeasterly to range line, 13 14,  $\frac{1}{4}$  mile south of township line, to Calumet Slough at crossing of Chicago and Rock Island Railway in Section 1; thence by said slough to the Little Calumet River; thence by easement along said river to Calumet harbor.

Canal to be located on center line of said right of way and Calumet River to be improved.

**Prism:** To be substantially the equivalent of the Illinois and Michigan Canal between Sag Junction and Chicago—assumed an average of 7 feet below datum, 50 feet wide at bottom and side slopes of 1 to 1—to the pumping station at Calumet Slough: the Calumet Slough and the Calumet River to be improved for a cross-section of not less than 1000 square feet below datum.

**Bridges:** To be standard for Illinois and Michigan Canal east of pumping station, fixed spans with standard head-room for Chicago River.

**Pumping station:** To be located at the Chicago, Rock Island and Pacific Railroad crossing on the west, to have a capacity of 60,000 cubic feet per minute at all times, as more particularly set forth hereinafter. Canal lock to be provided for passing station.

#### ESTIMATE FOR CANAL AND APPURTENANCES.

Right of way at cash value by Verne S. Pease. Excavation at 30 cents per yard and 10 per cent. The character of material is expensive and uncertain as to classification in localities. Bridging on masonry piers; 30 per cent added

Canal, 13.88 miles to one-quarter line,	
Section 1.....	\$ 1,842,534
Right of way, 1120.9 acres.....	136,534
Excavation, glacial drift, 3,500,000 yards	1,155,000
Excavation, rock, 132,000 yards.....	152,000
Bridging, 11 roadway, 3 double railway.	99,000
Pumping station and lock.....	300,000

Slough and river, 12.04 miles to harbor at One Hundred and Twenty-second Street, \$200,470.	
Right of way in Section 1, 30 acres.....	\$ 16,000
Excavation, miscellaneous, 439,000 yards	144,870
Bridging, 2 roadway and 2 double railway.....	39,600
Sag Junction to Calumet Harbor, 25.87 miles.....	2,043,004

#### PUMPING STATION—OPERATION AND MAINTENANCE.

Capacity to be 60,000 cubic feet per minute at all times under a maximum head of eight feet; the station to be provided with 3 units each of 30,000 feet, so as to insure constant service; pumps to be centrifugal type.

The cost of machinery, boilers and foundations, all in place, is given by the builders at \$300,000; to which add for buildings, bays, screens and a canal lock, \$100,000, making a total of \$300,000.

The pumping head is to be taken from mean lake level (1871-95) or +1.6 feet. The level in canal is taken at +5.27, found by deducting from the level at Bridgeport for 60,000 feet, +5.7, the grade for 4.38 miles less distance on a slope of 0.1 foot per mile, or 0.43 feet. The fall in channel

of approach or the Calumet River and slough from Calumet harbor (12.04 miles) is difficult to assign, but should not exceed 1.18 feet. The pumping head is therefore 4.80 feet.

The yearly charge (computed by rule given in Supplement to Part I).....\$62,292

Lake at 1.0 foot above datum: The head is increased by 0.6 foot, and the extra charge is \$4,771. Lake at datum: The head is increased by 1.6 feet, and the extra charge is \$12,647.

#### GROSS CAPITAL.

Sag Valley Canal, Calumet Slough and River .....	\$2,043,004
Flood water diversions.....	300,000
Yearly charge for pumping (\$62,292) capitalized at 4%.....	1,557,050
Total .....	\$3,900,054

#### SPECIFICATIONS FOR CANAL—NORTHERN ROUTE—ALTERNATIVE.

From the Illinois and Michigan Canal east of the range line near Summit, southeasterly through the Townships of Lyons, Lake and Hyde Park to the Calumet Harbor near One Hundred and Fourteenth Street.

Right of way and location to be one-eighth mile (660 feet) in width. To begin at Illinois and Michigan Canal, near the center of Section 7, T. 38 N., R. 13 E., and curving to the tangent through a point one-quarter mile north of said center and along said tangent to a point  $\frac{1}{4}$  mile north and  $\frac{1}{4}$  mile east of center of Section 28, T. 38 N., R. 14 E., near Vincennes Road and Seventy-fourth Street; thence southeasterly to One Hundred and Tenth Street, at a point about 1.6 mile west of center of Section 13, T. 37 N., R. 14 E.; thence on a curve to Calumet River between One Hundred and Thirteenth and One Hundred and Fourteenth Street. Canal to be located on center line of said right of way.

Prism to be substantially the equivalent of Illinois and Michigan Canal between Summit Junction and Chicago—assumed at an average of 6.5 feet below datum, 50 feet wide at bottom, and side slopes of 1 to 1, to the pumping station at the Pan-Handle Railway crossing; thence across section 12 feet deep and 1,000 square feet in area below datum taken at 70 feet bottom, width and side slopes of 1 to 1, to the Calumet River.

Bridges to be standard for Illinois and Michigan Canal; east of pumping station, fixed spans with standard head room for Chicago River.

Pumping Station to be located at the P., C., & St. L. crossing (Pan Handle) in Section 19, T. 38 N., R. 14 E. on the west. To have a capacity of 60,000 cubic feet per minute at all times, as more particularly set forth hereinafter. Canal lock to be provided for passing station.

# ESTIMATE FOR CANAL AND APPURTENANCES—ALTERNATIVE.

Right of way at cash value, by Verne S. Pease.  
Excavation at 20 cents per yard and 10 per cent;  
no spoil banks in populous districts. Bridging  
on masonry piers, 20 per cent added.

Canal, high level, 6.25 miles, I.  
& M. Canal to pumping station..... \$1,391,640

Right of way.....\$ 403,860  
Excavation, 2,619 yards..... 576,180  
Bridging, 6 roadway, 5 railway 111,600  
Pumping station and lock..... 300,000

Canal, low level, 4.73 miles,  
pumping station to S. D. line \$2,091,210  
Right of way.....\$1,471,750  
Excavation, 2,303,000 yards.... 506,660  
Bridging, 16 roadway, 2 railway 112,800

Canal, low level, 4.58 miles, S.  
D. line to river..... \$1,326,560  
Right of way.....\$ 880,100  
Excavation, 1,323,000 yards.... 291,060  
Bridging, 8 roadway, 6 railway 155,400

Summit Junction to Calumet River,  
15.56 miles.....\$4,809,410

## PUMPING STATION, OPERATION AND MAINTENANCE —ALTERNATIVE.

To be same as for Blue Island Station and operated under same head, to-wit: Canal elevation, 5.61; fall in channel of approach, 0.79; total, 6.4 or 4.8 feet from mean lake level.

Yearly charges (as before).....\$ 62,282

### GROSS CAPITAL.—ALTERNATIVE.

Calumet Canal, northern route.....\$ 4,809,410  
Flood water diversion..... 300,000  
Yearly charge for pumping (\$62,282)  
capitalized at 4 per cent..... 1,557,050

Total.....\$ 6,666,460

### THE LOCAL SERVICE.

The proposed district has 7 square miles of water, 16 miles lying under 5 feet above datum, and 11 miles lying between 5 and 10 feet, a total of 34 miles; half the remainder may be considered as permeable. The Indiana district has probably as large a proportion of low lying territory and substantially all the area is permeable. The capacity of the pumping station should care for all ordinary conditions of run-off.

All the sewer systems and all the channels for carrying sewage must avoid pollution of the large and shallow lake expanses.

The local service for the low-lying areas will be largely by pumping rather than by gravity and the outfalls can deliver directly to the canal or to the river through which a circulation is

maintained. The necessity for special provision produces a concentrated growth that facilitates such disposition. As the low water flow in the streams is well sustained, owing to the character of the territory, there will usually be enough circulation to care for the general population until special provision is justified.

### THE TWO ROUTES.

The relative utility and advantage of the two routes depend largely upon considerations pertaining to the Sanitary District of Chicago and on future development. The northern route facilitates the treatment of the low-lying territory within the Sanitary District between Sixtieth and Eighty-seventh Streets, and also the high level territory in the vicinity of the line. This matter involves other territory and is reserved for the Supplement.

What may be cheapest for a progressive development involves a consideration of the relative cost of gravity channels of large prism. This consideration will develop under Schemes No. 2 and No. 3.

It is apparent that the Sag Valley route in conjunction with the Illinois and Michigan Canal permits the organization of an entirely independent district with its own outlet, while the northern route involves relations with the Sanitary District of Chicago, and suggests an auxiliary district or annexation.

### MAPS AND DIAGRAMS.

The accompanying map (scale 1 inch per mile) shows contours of elevation as given by the United States Geological Survey, and exhibits the political divisions, all incorporated cities, towns and villages and the boundaries proposed for the new district. The location, profile and cross section of the proposed canal by the alternative routes, are also shown.

The large scale maps and actual surveys of the Sanitary District of Chicago and of the United States Engineers office have been utilized in all matters requiring detailed consideration. The information is insufficient in regard to the character of excavation.

### HISTORICAL.

The treatment of the Calumet region and the extension of the Illinois and Michigan Canal to Blue Island via Sag Valley, was discussed in the report of the "Pure Water Commission," submitted to the Mayor, Hon. Geo. B. Swift, February 9, 1897 (proceedings of City Council, March 1, 1897). A bill was drawn providing for the changes in canal location, but was not put upon its passage. The project has been revived by the Canal Commissioners in their report for 1900, and was recommended by Governor Tanner in his last message to the General Assembly now in session.

The general route of the northern location for

a branch channel terminating in the Calumet or on the shore north of Eighty-seventh Street, was delineated on a map which formed part of the exhibit of the petitioners of the present district in 1889. This location was also a matter of concern to the members of the General Assembly from Lake and Hyde Park when the Sanitary District bill was pending in the session of 1889.

The Sag Valley route was surveyed for a steamboat canal by Captain (now Major) W. L. Marshall, Corps of Engineers, U. S. A., in 1888-90, and has been repeatedly suggested for this purpose.

Since 1897, movements have been made for the organization of an auxiliary district and for an amendment to the law providing a procedure for annexation, but without success.

#### EXPLANATION.

The proposed right of way of a width of 660 feet is intended to provide for future development, while the present construction is also facilitated.

#### APPENDICES.

There are appended hereto the following:

A supplement dealing with collateral questions.

1. Extract from the report of the Illinois and Michigan Canal Commissioners to the Governor of Illinois for 1874.

2. Extract from report of the Pure Water Commission 1896-7, in respect to the Calumet District, with proposed amendment to Sanitary District Act providing for change in location of Illinois and Michigan Canal. (For annexation amendment, see appendix to North Shore Exhibit.)

3. Extract from message of Gov. Tanner to the General Assembly of Illinois, (Session of 1901) and from report of Illinois and Michigan Canal Commissioners for 1900.

The maps hereinbefore described.

#### SUPPLEMENT.

##### *Calumet District.*

Collateral questions, matters of incidental interest, and the relation of the project to the works of the Sanitary District and the City of Chicago have been reserved for separate treatment.

##### *Variations of Route.*

The river portion of the Sag Valley route may be shortened 3.5 miles by a cut-off from the vicinity of Wildwood Station (Illinois Central Railway) easterly by way of foot of Lake Calumet to the outlet at the forks. This variation is not advisable for a small canal in view of the capacity of the river between these points, but this change in route becomes important to a gravity canal carrying a large volume of water.

The northern route may curve to the east at the Chicago and Western Indiana Railway crossing in Sec. 2, T. 37 N., R. 14 E., and reach the Calumet between Ninety-ninth and One Hundredth Streets. The saving in canal length is 0.54 miles and in river 2.0, or a total of 2.55 miles. This change is judicious for a gravity canal.

The distance from the common point at Sag to Calumet pier light is, by the Sag Valley route, 30.53 miles, and by the northern route, 30.31 miles.

##### *Northern Route—Service Within Sanitary District.*

The intercepting sewer district, extending from Thirty-first to Eighty-seventh Street, as now planned, is to discharge by means of a pumping station through the Thirty-ninth Street conduit. In Part I. an estimate of \$350,000 is submitted for cost of station and appurtenances, and of \$60,633 for the yearly charge for operation and maintenance as a sewer outfall only, the two items representing a gross capital of \$1,865,825.

This sewer district comprises an area of some 21 square miles, about one-third of which only, and that third the highest ground, lies within three miles of 39th street, while two thirds the area is nearly all low-lying, and from three to six miles distant, or further by the sewer development. The shape and topography are unsuited to economy in plan and in operation.

The proposed canal is favorably located for the solution south of 60th street, an area of some 14 square miles, and it also facilitates the solution of the high level territory in the vicinity. To realize these advantages calls for a recasting of the plans for work projected in this portion of the city.

In reply to inquiry the following was received under date of March 25th, from Wm. S. MacHarg, Chief Engineer of Intercepting Sewers. (Portion given referring to this matter.)

"I would say that I have talked the matter over with Mr. Hill, Chief Engineer Bureau of Sewers, and our conclusion is as follows:

"The immediate construction of the canal on the lines laid down in the letter would allow changes to be made in the proposed sewer systems adjacent to the lines shown, facilitating construction and reducing sizes and would permit the return to the original dimensions in Sections G and H, intercepting sewers, reducing the cost altogether about one million dollars. \* \* \* These figures are made largely from inspections of the proposed general sewer systems and from estimates previously made and are approximate, and delay in building such canal will materially reduce them."

The "original dimensions" above, referred to a district limited to 75th street on the south. An

entire revision of plan might send to the canal all territory south of 60th street. The 39th street pumping district would have the same area as the Lawrence avenue district, after deducting the portion north of 39th, which may discharge to the conduit by gravity, and the pumping lift would be materially reduced.

The southern pumping district would be reduced to about double the area of the Lawrence Avenue district, and the lift would also be lessened. The remaining territory admits a gravity solution.

A close estimate is not practicable with much time and sufficient plans. Roughly it appears that there will be a material saving in constructing the system and in operating the same, amounting to a gross capital of \$600,000 to \$600,000. With a small allowance to the potential value of the line to the future sewer system of undeveloped territory, this figure may be increased to \$1,000,000.

It is therefore assumed that the special benefit of the Northern Calumet Canal to territory within the present Sanitary District will be at least \$2,400,000. Over three-fourths of this is for work now projected and in sight.

#### COMPARISON OF ROUTES.

The saving produced by a change in plan in conjunction with the Calumet Northern Canal is substantially a saving in work actually projected and authorized, and in part the subject of agreement between the Sanitary District and the City of Chicago. It may be considered as covered by existing obligations and is therefore a legitimate credit.

The estimated cost is.....\$6,666,460  
Saving, credited to same..... 2,000,000

The net liability is.....\$4,666,460  
Sag Valley Canal..... 3,900,054

Apparent excess.....\$ 766,406

It is to be noted that the difference in estimate is largely a matter of right of way, and that this item becomes relatively less in large prisms. The two canals, for progressive development, present a different relation, which will be made apparent under Schemes No. 2 and No. 3.

#### APPENDIX NO. 1.

EXTRACT FROM THE REPORT OF THE ILLINOIS AND MICHIGAN CANAL COMMISSIONERS TO THE GOVERNOR OF ILLINOIS FOR 1874.

##### *Calumet Dam.*

Pursuant to the provisions of "An act entitled 'An act to authorize the removal of the Feeder Dam across the Calumet River, near Blue Island, in Cook County, in the State of Illinois, and to provide compensation to Christian Pfeiffer and

John Roll for any loss they may sustain by its removal,' approved March 27, 1874," the Canal Commissioners, upon receiving a certified copy of said bill, with instructions from your Excellency, proceeded immediately to hold a conference with Christian Pfeiffer and John Roll, and negotiated with them for their release to the State of Illinois, by quit-claim deed, all right they claimed to have to said dam and the water power thereby created, in accordance with the tenor and meaning of the said bill, for the sum of six thousand dollars, which was paid to them by warrant drawn upon the State Treasurer for that amount, after they had executed and delivered the following instrument in duplicate, which is recorded in the Recorder's office in the County of Cook, and a copy of the same is now on file in the Canal office at Lockport.

(Form of deed follows.)

The Commissioners, upon taking possession of the dam, advertised for ten days for proposals for the removal of the same, receiving but one bid of \$1,250 and the old material for doing the work, which they considered an exorbitant price, and therefore rejected the bid, and at once ordered the General Superintendent to remove a sufficient portion of the dam to allow the water above to escape, which was done at a cost of about \$250, and arranged with Messrs. Pfeiffer and Roll to take out the balance; they receiving the old material in full compensation for their labor. The immediate result of the removal of the dam May 1st was to lower the water in the Calumet River at Blue Island about five feet, and at the same time lowered the water at Liverpool crossing and in Deep River, a branch of the Calumet, at Hobart, in the State of Indiana—a distance of about thirty-five miles by way of the river—eighteen inches, not quite as much as was confidently expected, owing to sandbars in the bed of the river at a number of points that obstruct the flow of the water. Upon their removal, which is being contemplated, there is no doubt but that large quantities of land will be very greatly benefited in our own State as well as in the State of Indiana.

#### APPENDIX NO. 2.

EXTRACT FROM REPORT PURE WATER COMMISSION OF 1896-7, WITH PROPOSED AMENDMENT FOR CHANGE IN ILLINOIS AND MICHIGAN CANAL LOCATION.

(Extract from report of "Committee of Experts" to Hon. Geo. B. Swift, Mayor, dated February 8, 1897, and printed in Proceedings of City Council of March 1, 1897, pages 1635-1637, said committee being known as "Pure Water Commission" and consisting of Joseph Downey, Samuel G. Artingstall, Lyman E. Cooley, Wm. Sooy Smith and George H. Benzenberg).

*Calumet Region.*

The Calumet District includes that part of the city outside of the present limits of the Sanitary District and south of Eighty-seventh Street, the natural drainage of which reaches Lake Michigan through the Calumet River.

The low-lying portion within the city limits is comprised within the area between State Street and Indiana state line, of which area 6.5 square miles are covered by the river and by Lake Calumet and Lakes Hyde and Wolf, shoal expanses of water not exceeding three feet in depth below city datum, while 14 square miles lie under five feet above city datum, or within the range of high water of Lake Michigan. Six miles additional lies between five and ten feet above datum and only 3.5 square miles are above ten feet out of a total of 30 square miles.

There is also low-lying ground south of the city limits and an extensive area east of the state line in Indiana, the natural drainage of which is into the State of Illinois, and on which extensive filth-producing industries are located, or propose to locate, beyond the jurisdiction of the State of Illinois. This very extensive and low-lying district in Indiana and Illinois consists of sand, often in light wind-blown ridges, with much marshes, sloughs and shallow lakes, or clay beds at varying depths.

The entire drainage area south of Eighty-seventh Street and extending to the shore line of Lake Michigan is 825 square miles, of which 485 lie in Indiana and 340 in Illinois. Of this, 720 square miles finds its outlet at Riverdale, and is in large part upland, with relatively a small area of low ground, and is for the most part outside of urban territory. The remaining 105 square miles, of which 55 miles are in Indiana, is over three-fourths of the low-lying character, hereinbefore described.

It is apparent at the outset, that the storm waters from as much of the basin as may be feasible, should be diverted to Lake Michigan outside of the present and prospective urban territory. It is practicable at moderate cost to divert the greater portion of the Little Calumet and the eastern end of the Grand Calumet (some 600 square miles) directly to Lake Michigan by a cut north from the Little Calumet in the vicinity of Liverpool, Ind., and east of Clarke and Tolleston. The slope in the Little Calumet is so very slight, the course being largely fringed with marsh, and all the drainage of this stream westward to the mouth of Thorn Creek, and possibly farther, may be actually reversed and made more effective through the new outlet.

It may be possible, also, to reverse and send westward the drainage of the greater portion of the 120 square miles in the Sag Valley west of Blue Island, thus reducing the area requiring treatment to not exceed 125 square miles. This remaining territory will have several square

miles of open water and about 75 square miles of low ground, the drainage of which will be slow. The higher lands are also largely permeable, a small portion only being clay soil, and the normal drainage of this will also be slow.

It is obvious that whatever treatment may be adopted for this region, the constant pollution of the shallow lake expanses cannot be tolerated without serious menace to the public health.

Considering also that there is no population in the district except as concentrated in small areas and that the probable growth will be from local centers as industries are planted and developed, it is apparent that the sewer system will develop in districts of convenient size and largely by the pumping plan, with outfalls into the natural water courses as the same may be improved for commercial purposes.

Considering the resources available in this territory it is apparent that a final solution adequate to all future requirements of this region can not now be attempted, but at the same time it will be feasible and wise to direct all expenditures in harmony with some plan, which may be eventually carried out.

It is practicable to open up a channel of moderate capacity through Sag Valley, by the route of the old feeder of the Illinois and Michigan Canal, or by the more direct route south of Lane's Island, as surveyed by Captain (now Major) W. L. Marshall. This channel would begin at or near Blue Island and terminate in the Illinois and Michigan Canal, or the Drainage Channel at Sag Station.

A channel of the present dimensions and capacity of the Illinois and Michigan Canal, with suitable pumping works at Blue Island, would handle about 60,000 cubic feet per minute (which may be increased 50 per cent in emergencies), and would maintain a circulation through the Calumet River, between the Lake and Blue Island, a distance of some sixteen miles, by natural course, and provide dilution on the basis of the Sanitary District act for a population of 300,000. When the population exceeds this, a larger and deeper channel, flowing by gravity will be required, into and through the Desplaines Valley, the same to be tributary to or independent of the Main Channel of the present Sanitary District.

The above provision will take care of the ordinary flow of the Calumet territory, when the same has been limited as suggested, but will not care for considerable floods, unless it be feasible to use some of the lake expanses for temporary storage. At the same time, with efficient operation of the Pumping Station, the results will be far more satisfactory than has been the case with the Chicago River, with the enormous population of the territory draining therein. The territory itself is but little over half than territory tributary to the Chicago



River without the overflow of the Desplaines River, and the soil is open and of slow drainage, while that of the Chicago River is clay with much upland and relatively quick drainage. The solution will therefore be a great improvement over present conditions and furnish substantial relief until this territory has sufficiently grown to justify further treatment.

It is obvious at the outset that co-operative legislation by the State of Indiana would be required, and further, that the scope of the problem extends far beyond the jurisdiction of the city. The Sanitary District law has provided for the organization of Auxiliary Sanitary Districts, and under this or through annexation to the present district (which would probably require further legislation) a solution can be worked out.

In this connection it may be well to point out that after the opening of the Sanitary Canal, the present Pumping Station at Bridgeport will no longer be needed for sanitary purposes, a matter of serious consideration to the Canal Authorities in view of a proper state of water for navigation, and also of water power now furnished from the Canal. In addition, The Sanitary Canal will largely supplant the old canal for commercial purposes. By a lock into the new channel at Sag Station, and the construction of the Canal to the Calumet region, it would be practicable to abandon the Chicago portion of the Canal above Sag and turn the value of the property into the Sag Route, thus securing a new outlet for the old canal, protecting its vested interests, and providing for the Calumet region without taxing the capacity of the main outlet as now designed for the territory north of Eighty-seventh Street.

No estimate is made, as this would require an extended examination of the existing surveys and further field work.

#### PROPOSED AMENDMENT TO SANITARY DISTRICT ACT.

*(Drawn in 1897, but not introduced).*

"SECTION 29. In case the Calumet region is annexed to the Sanitary District of Chicago under the provision of Section 28, (see Appendix to North Shore Exhibit) of this Act, said Sanitary District is authorized to locate and construct through the Sag Valley from the Illinois and Michigan Canal at or near Sag Station to the navigable waters of the Calumet River at or near Blue Island a canal equal in dimensions, grade and capacity and in all other respects to the said Illinois and Michigan Canal between Sag Station and the Chicago River, and in that event, shall erect and maintain pumping works at the Calumet terminus of such canal of a minimum capacity of sixty thousand cubic feet per minute, and of an emergency capacity of ninety thousand cubic feet per minute and shall operate said pumping works so as to maintain through said canal a continuous flow, sufficient at all times to dilute the sewage tributary

thereto in accordance with the terms of this Act, and said flow shall at no time be less than thirty thousand cubic feet per minute and shall be increased as sanitary needs may require, and suitable locks shall be built at the Calumet terminus of such canal, and also between said Illinois and Michigan Canal and the Sanitary Canal of Chicago at or near Sag; and when all work has been done to the satisfaction of the Commissioners of the Illinois and Michigan Canal, the said Commissioners shall accept said new canal, pumping works, locks and right of way of a width of 240 feet, as the continuation of the Illinois and Michigan Canal and shall abandon the old canal between the point of junction at Sag and the Chicago River and shall turn the same and all realty pertaining thereto to the Sanitary District of Chicago and all rights of the State now obtaining in the old canal between Sag and Chicago, shall be vested in the said new canal through the Sag Valley.

"Provided, That the State shall be put to no expense on account of the change in the location and terminus of the Illinois and Michigan Canal, and that pending the completion and acceptance of the new work, the present pumping works at Bridgeport shall be operated by the Sanitary District of Chicago so as to maintain in the old Canal at Bridgeport a stage of water not less than one foot above city datum, or 'low water of 1847'; and it is further provided that the Sanitary District of Chicago may, subject to the approval of the Commissioners of the Illinois and Michigan Canal, by a suitable raceway at Lockport, restore to said Canal the waters now abandoned to the Desplaines River at that point, and by alterations and constructions provide for the conduct of such waters along said Canal to and through the City of Joliet, and may so change the location and construction of said Canal at Joliet as to separate the same entirely from the Desplaines River, and provide a crossing by means of an aqueduct, and may otherwise provide for the utilization of the water carried by the Illinois and Michigan Canal so as to impair as little as may be the enjoyment of the same as a source of revenue to the said Canal, all rights of the State to be maintained unimpaired in the property as it may be thus changed."

#### APPENDIX NO. 3.

##### EXTRACT FROM ANNUAL MESSAGE OF GOVERNOR TANNER TO THE GENERAL ASSEMBLY OF ILLINOIS.

In his annual message to the Legislature of Illinois, January 9, 1901, Governor Tanner used the following language respecting the extension of the Illinois and Michigan Canal to Lake Michigan through the Sag Valley:

"I desire to suggest that it lies in your power to put a stop to all further litigation between the Sanitary District and the State, and at

the same time to enact such legislation as will result in vast benefits to both the State and the Sanitary District, and to a great community which is now just outside the limits of the Sanitary District of Chicago, and enduring much suffering for lack of proper sanitation. The legislation to which I refer would provide for the connection of the Calumet River at Blue Island with the Illinois and Michigan Canal and the Sanitary District Channel at Sag by means of a channel of such dimensions as will afford ample facilities for both the sanitary relief of the Calumet region and for commercial purposes, giving to the Trustees of the new Sanitary District control of the sanitation features of the channel, but requiring the Canal Commissioners to supervise and direct all matters connected with the navigation or other commercial features of the same."

EXTRACT FROM REPORT OF THE BOARD OF CANAL  
COMMISSIONERS FOR 1900.

"In our previous reports we have frequently called attention to the desirability of restoring the Calumet feeder, so as to provide water for navigation purposes to the Illinois and Michigan Canal, and at the same time affording means for the disposal of the sewage of the Calumet region, which at present is discharged into Lake Michigan thus poisoning the drinking water of a thickly populated district; and also for the purpose of establishing an additional navigable outlet from Lake Michigan through the Illinois and Michigan Canal to the Mississippi River. At the conference between your commissioners and the Trustees of the Sanitary District of November 6, 1899, at which you presided, you made certain suggestions along this line in writing, the salient points of which, and the advantages to accrue to the State and to the Sanitary District of Chicago, are set out in our annual report of 1899. At that time the Sanitary District Trustees refused to consider any proposition looking toward the re-establishment of the Calumet feeder and the question at issue between us and the Sanitary District Trustees in regard to supplying the Summit level of the canal with water was afterward settled by their entering into the agreement of December 21, 1899.

"It would seem now that the suggestions made by you at that time provided the only feasible solution to the controversy between the State and the Sanitary District, as the results obtained from turning water from Lake Michigan into the Sanitary District Channel through the Chicago River have demonstrated that the construction of the channel from Calumet River by the way of the Calumet River is absolutely necessary in order to supply to the Sanitary District Channel the amount of water required by law."

SCHEME NO. 1—PART III.

INTRODUCTORY SUMMARY.

*The North Shore Sanitary District*

Includes Townships of Evanston, New Trier, Niles and part of Norwood Park, Maine and Northfield, County of Cook, with an area of 78.6 square miles; and Deerfield and part of West Deerfield and Shields, County of Lake, with an area of 16.6 square miles; a total of 95.2 square miles.

Common outlet, by canal through the Evanston-Niles prairie from Lake Michigan in the Village of Wilmette to the North Branch at Lawrence Avenue, near Bowmanville, in the City of Chicago; thence by North Branch and Chicago River to the Main Channel, or outlet, of the Sanitary District of Chicago.

Canal to be operated by pumping station with a working capacity of 60,000 cubic feet per minute for dilution and circulation of sewage.

Service to said canal by ordinary combined sewer systems west of east ridge (Hinman Avenue) at Evanston and south of diagonal line (see map) passing north of Winnetka, near Lakeside Station; north of said line, the separate system with outfall sewer by tunnel in bluff near lake front and by outfall sewer on east margin of Skokie, built in open cut, both extending to Lake Forest; east of east ridge at Evanston, a pumping district.

Population by United States Census of 1900, 47,460, of which 7,189 are in Lake County.

Equalized valuation for purposes of taxation by assessment of 1900, \$10,287,574, of which \$1,414,281 are in Lake County.

Cost of canal and pumping works, including right of way and bridging, \$3,428,333.

Yearly charge for operating pumping works, \$26,137; capitalized at 4 per cent, \$653,427.

Gross capital, \$3,081,700.

Net liability with Lawrence Avenue conduit completed and operated as a sewer outfall, \$1,378,554.

River improvement south of Lawrence Avenue provided for by agreement between city and Sanitary District.

Right of way is 660 feet wide and provides for future development.

Supplement to exhibit deals with collateral questions.

Amendment to law—Bill for, as drawn in 1897.

Maps and diagrams show political divisions, topography and proposed works.

All as shown herein in greater detail.

CHICAGO, February 27, 1901.

#### THE NORTH SHORE DISTRICT.

The territory to the north of the Sanitary District of Chicago and lying adjacent to the lakeshore and in the basin of the North Branch of the Chicago River, can be provided with an outlet by means of a canal through the Evanston-Niles prairie from Lake Michigan in the Village of Wilmette to the North Branch near Bowmanville, and thence by the North Branch to the Chicago River and the Main Channel or outlet of the Sanitary District of Chicago. Said canal, in conjunction with the North Branch, provides a common outfall for all the sewage and drainage of such territory, and a large volume of water for circulation and dilution by the aid of pumping works. Such territory (within the county) may be organized as an auxiliary district under the present law; or, by amendment, it may be annexed to the parent District.

#### *Proposed District.*

The territory included is largely urban and all within the "three mile limit," and susceptible of sewage in a reasonable manner. The limit from which sewage may be brought to the common outlet fixes the northern boundary, while to the west it is determined by the divide and by rural territory.

The boundaries are specifically described as follows: Beginning at the northeast angle of the Sanitary District of Chicago, three miles from the shore of Lake Michigan, westerly along the northern boundary of said District to the northwest angle therefor on the range line between Ranges 12 and 13 East, and on the south line of the Township of Norwood Park; thence west to the quarter corner; thence north to the middle of Sections 18, 12 and 1, Range 12 East, to township line; thence west and north by boundary of Village of Edison Park to Rand Road, and by said road and by west line of Sections 36, 25, 24, 13 and 12, Range 12 East, township of Maine, to township line; thence north through middle of Township of Northfield and on section line to the boundary between Cook and Lake Counties; thence four miles north on west line of Township of Deerfield; thence to include east half of Section 9 and all of Section 4 of the Township of West Deerfield; thence on west line of Sections 33 and 28 of the Township of Shields; thence east on north line of Sections 23 and 27 of the Township of Shields to a point three miles from shore; thence in

Lake Michigan parallel to shore and three miles therefrom to point of beginning.

The territory is given by townships and in square miles as follows:

#### Cook County—

Evanston.....	9.89
New Trier.....	17.44
Niles.....	23.70
Norwood Park; that part in E. 13	
E., and E. ½ Sections 1, 12 and 13,	
R. 12 E.....	5.95
Maine; that part in Sections 12, 13,	
24, 25, and in 36 north of Rand	
Road and Edison Park.....	4.57
Northfield; the east half.....	17.05
	<hr/> 78.60

#### Lake County—

Deerfield.....	12.47
West Deerfield.....	1.60
Shields.....	2.53
	<hr/> 16.60

Proposed district, total..... 95.20

#### *Population 1900.*

By United States census; fractional divisions approximate.

Cook County..... 40,300

#### Evanston Township—

Chicago.....	3,993
Evanston.....	18,439
Rural.....	282
	<hr/> 22,714

#### New Trier Township—

Evanston.....	643
Wilmette.....	2,960
Kenilworth.....	386
Gross Point.....	689
Winnetka.....	1,333
Glencoe.....	1,020
Rural.....	498
	<hr/> 7,299

#### Niles Township—

Evanston.....	177
Chicago.....	300
Niles Center.....	529
Niles.....	514
Morton Grove.....	564
Rural....	2,346
	<hr/> 4,330

#### Norwood Park Township, part of—

Chicago.....	1,413
Rural.....	2,300
	<hr/> 3,713

#### Maine Township, part of—

Chicago.....	100
Edison Park.....	344
Park Ridge, part of.....	200
Rural.....	200
	<hr/> 844

**Northfield Township, part of—**

Glen View.....	400
Rural.....	1,000
	<u>1,400</u>

**Lake County—**

Highland Park.....	2,808
Fort Sheridan (Highwood).....	1,575
Lake Forest.....	2,215
Rural.....	573
	<u>7,169</u>

Proposed district, total ..... 47,469

Of the above population 7,099 is rural and 40,370 is urban.

*Equalized Value 1900.*

Cook County.....\$ 8,873,283

**Evanston Township—**

City of Chicago.....	\$1,259,451
City of Evanston.....	5,082,379
Rural.....	80,124
	<u>\$6,880,954</u>

**New Trier Township—**

City of Evanston.....	\$ 138,675
Village of Wilmette.....	370,578
Village of Kenilworth.....	115,725
Village of Gross Point.....	56,423
Village of Winnetka.....	382,250
Village of Glencoe.....	321,508
Rural.....	115,395
	<u>\$1,497,549</u>

**Niles Township—**

City of Chicago.....	\$ 12,013
City of Evanston.....	26,438
Village of Niles Center....	23,074
Village of Niles.....	41,248
Village of Morton Grove..	65,372
Rural.....	310,139
	<u>\$ 478,248</u>

**Norwood Park Township—**

City of Chicago.....	\$ 154,770
Rural.....	60,013
	<u>\$ 214,783</u>

**Maine Township—**

City of Chicago.....	\$ 4,282
Village of Edison Park....	73,313
Rural.....	35,086
	<u>\$ 117,681</u>

**Northfield Township—**

Half town valuation.....	\$ 184,032
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**Lake County—**

City of Highland Park....	\$ 527,494
Village of Fort Sheridan..	63,895
City of Lake Forest.....	704,502
	<u>\$1,295,891</u>

Deerfield.....	\$ 88,272
West Deerfield, estimate..	26,390
Shields, estimate.....	3,678
	<u>\$ 118,340</u>

Rural.....\$ 118,340

Proposed district, total.....\$10,287,514

*Specifications for Canal.*

From Lake Michigan in the Village of Wilmette to the North Branch of the Chicago River, at Lawrence Avenue in the City of Chicago. A conduit is now constructing on Lawrence Avenue from the Lake to the North Branch, and the improvement of the North Branch from the point of junction to Belmont Avenue is provided for by agreement between the City of Chicago and the Sanitary District of Chicago.

Right of way and location to be one-eighth mile (660 feet) in width. To begin at the shore of Lake Michigan in Block 23, Village of Wilmette, Township of New Trier, and to extend to Gibbs Street, north line of Section 14, in Township of Niles, on a radius of two miles from center of Gibbs Street prolonged; thence in Niles adjacent to township line of Evanston-Niles to Sanitary District line; thence adjacent to east line Sections 2 and 11, Township of Jefferson, to  $\frac{1}{4}$  line in Section 11; then diagonally through Section 12 to south line (Lawrence Avenue) one-eighth mile west of  $\frac{1}{4}$  corner. The channel to be constructed along center line of said right of way.

Prism to be 12 feet deep below Chicago City datum, 40 feet wide on bottom with side slopes of 5 to 3, berm of 10 feet at elevation + 6, sides vertical above + 6; said prism to extend from pumping station near Lake Michigan to junction with North Branch near center line of Sections 11 and 12. Prism to be 40 feet wider below North Branch junction and 25 feet wider between pumping station and Lake Michigan.

Bridges to be fixed spans with minimum head room equal to standard for Chicago River.

Pumping station to be located near the shore of Lake Michigan and at or near the prolongation of the Chicago, Milwaukee and St. Paul Railway tracks. To have a capacity of 60,000 cubic feet per minute at all times, as more particularly set forth hereinafter. Tuglock to be provided for passing station.

Lake Inlet to extend to 15 feet of water and be dredged and protected by suitable sheet pile dock and crib work so as to always maintain a free entrance.

*Estimate for Canal and Appurtenances.*

Right of way, at cash value, by Geo. S. Baker, Section 12, Jefferson, estimated.

Excavation at 20 cents per yard and 10 per cent. No spoil banks in Evanston and Wilmette.

Bridging on masonry piers, 20 per cent. added.

**Summary, \$2,428,338.**

Right of way, 8.31 miles .....	\$1,035,592
Excavation, 4,488,488 yards.....	987,466
Bridging, 21 .....	180,366
Lake entrance .....	74,909
Pumping station and lock.....	150,900

**Pumping Station—Operation and Maintenance.**

Capacity to be 60,000 cubic feet per minute at all times under a maximum head of three feet; the station to be provided with two units, each of 60,000 feet, so as to insure constant service; pumps to be the screw propeller type.

The cost of machinery, boilers and foundation, all in place, is given by the builders at \$100,000; to which add, for building, bays, screens and a tug-lock, \$50,000; making a total of \$150,000.

The pumping head is to be taken at 1.5 feet for the canal and ordinary stage in North Branch.

Yearly charge, (computed by rule given in Supplement to Part 1) \$26,137.

**Gross Capital.**

Canal and appurtenances.....	\$ 2,428,338
Yearly charge for pumping (\$26,137)	
capitalized at 4 per cent.....	653,427
<b>Total.....</b>	<b>\$ 3,081,760</b>

**The Local Service.**

All territory west of the main Evanston Ridge and as far north as a diagonal line (see map) drawn through Lakeside Station, can be sewered to the canal in the ordinary manner. East of the ridge and within the city limits of Chicago, service is being provided by intercepting sewers reaching the North Branch by means of the Lawrence Avenue conduit. The City of Evanston between the two ridges can be diverted westward by changes in the present sewer system, but between the ridge at Hinman Avenue and the shore pumping will be required.

North of Lakeside Station, to and including Lake Forest, the normal solution is by the separate system of sewerage, in conjunction with outfall mains reaching the canal in New Trier. A tunnel can be readily driven in the clay bluff back from the lake front for a common outfall and another main may be constructed in the ordinary manner to the west of the ridge on the borders of the Skokie.

**The Waukegan Shore.**

The following population in Illinois is tributary to the lake north of Lake Forest:

**Urban—**

Lake Bluff.....	490
North Chicago.....	1,150
Waukegan.....	9,426
<b>Total .....</b>	<b>11,066</b>

**Rural—**

Shields Township.....	325
Waukegan Township.....	485
Benton Township.....	725
<b>Total ..</b>	<b>1,535</b>

**Maps and Diagrams.**

The accompanying map (scale one inch per mile) shows contours of elevation as shown by the United States geological survey and exhibits the political divisions, all incorporated cities, towns and villages, and the boundaries proposed for the new district. The location, profile and prism of the proposed canal are also shown.

**Historical.**

A canal from the North Branch near Bowmanville to Lake Michigan north of Gross Point Light House was delineated on a map which was part of the exhibit of the petitioners before the boundary commission that determined the boundaries of the present district in 1889. It was then proposed to include Evanston, Niles and a fraction of Norwood Park, Maine and New Trier in the original district. The northern limits were to be near the north line of the present villages of Gross Point and Kenilworth.

The Pure Water Commission, sometimes known as the Swift Commission (see report proceedings of City Council March 1, 1897; Chicago), devoted a paragraph to this solution.

The Sanitary District in the early '90s made elaborate surveys of the lower end of the Skokie and thence across the ridge to the lake south of Winnetka for a flood water diversion of the upper North Branch. It has also made elaborate surveys covering most of the Canal route through the Evanston-Niles prairie.

No other solution than by the canal through the prairie has ever been considered or seriously proposed.

**Explanation.**

The proposed right of way of a width of 660 feet is intended to provide for any possible development in the future, while the construction thereon is limited to the present requirements. Such right of way also facilitates and cheapens the present work.

**Appendices.**

There are attached hereto the following:

A supplement dealing with collateral questions.

1. Extracts from report of Pure Water Commission of 1896-7.

2. A draft of Amendment to Sanitary District Act, providing for annexation of new territory.

The map hereinbefore described.

#### SUPPLEMENT—NORTH SHORE DISTRICT.

Collateral questions, matters of incidental interest and the relations of the project to the works of the Sanitary District and the City of Chicago have been reserved for separate treatment.

##### *Effect of Change in Plan.*

The gross capital involved in completing the present project for the Lawrence Avenue conduit, as set forth in the Supplement, Part 1, is \$ 2,713,006

Conduit and pumping station, completing. .... \$ 954,556

Capital charge, pumping. 1,759,050

The gross capital involved in the change of plan to a sewer outfall only, as set forth in Part 1, is..... 1,008,400

Sewer outfall and pumping station..... \$ 500,000

Capital charge, pumping.. 508,400

The difference in gross capital is.. \$ 1,705,206

This difference may be regarded as part of an existing obligation, and is therefore a legitimate credit to works that may accomplish the same object.

The gross capital involved in the North Shore Canal, as hereinbefore set forth, is. .... \$ 3,081,760

Saving, credited to same..... 1,705,206

The net liability is..... \$ 1,376,554

It is to be noted that the additional water provided for the circulation of the North Branch is proportionally much greater than the additional cost, aside from the service furnished the North Shore district by canal—by canal, 60,000 feet per minute; by conduit, 25,000 feet.

##### *Variation in Canal Location.*

Prolong the Evanston-Niles tangent directly south, right of way adjacent to east line of Sections 11 and 14 and one-fourth mile in Section 23, Township of Jefferson, thence easement parallel to Elston Road to North Branch at Belmont Avenue. The estimate from point of variation (16,600 feet) is as follows:

Right of way ..... \$470,841

Excavation..... 292,063

Bridging ..... 46,200

Lawrence Avenue sewer outfall, 2,000 feet extra..... 50,000

Additional cost of pumping, capitalized 12,600

Gross capital, total..... \$971,206

Normal line (16,200 feet) south from point of variation.

Right of way..... \$200,000

Excavation..... 256,870

Bridging..... 46,200

\$503,070

Difference favoring normal line.... \$468,136

The route of the variation is one of the early suggestions looking to a possible extension in rear of city and the ultimate closing of the river in the immediate heart of Chicago. Nor was the Lawrence Avenue Conduit considered at that time, or any conduit for more than intercepting sewer purposes.

##### *North Branch Basin.*

The west boundary of the Sanitary District and of the North Shore District is taken as the limit of the basin as far north as the north line of Maine Township. The basin is subdivided as follows:

North and west of new district in Township of Northfield and County of Lake..... 46.8

Within District to Morton Grove..... 43.3 90.0

Morton Grove to Lawrence Avenue..... 15.7 126.7

The Evanston Niles prairie..... 19.3 125.0

Lawrence Avenue to mouth at forks..... 46.1 171.1

New Territory—

The North Prairie, Evanston and New Trier..... 6.4 177.5

Evanston east of main ridge..... 3.2 180.7

Lawrence Avenue sewer district.. 5.3 185.0

The entire area, including new territory, concentrating at Lawrence Avenue, is 139.9 miles.

The shore area proper, north of Lakeside ravine, is 98 miles.

The entire area of 185 miles lies as follows: Within present district, 53.8 miles; north of present district, 132.2 miles.

The Lawrence Avenue district is a pumping district; also about one mile of Evanston east of main ridge.

#### APPENDIX NO. 1.

EXTRACT FROM THE REPORT OF THE PURE WATER COMMISSION OF 1896-7—HON.

GEO. B. SWIFT, MAYOR  
OF CHICAGO.

*"The Evanston District.*

"We have further considered the out-falls

which discharge their sewage into Lake Michigan, and which are located north of the city limits in the City of Evanston and the towns and villages adjoining on the north. We are satisfied that this district can be better and more economically served by the construction of an independent system with out-fall into a conduit or canal along the course of the Evanston ditch, as may become expedient in view of future requirements for dilution and circulation in the North Branch."—Proceedings of City Council, March 1, 1897, page 1637.

WILLIAM SOOY SMITH,  
GEORGE H. BENZENBERG,  
LYMAN E. COOLEY,  
SAMUEL ARTINGSTALL,  
JOSEPH DOWNEY,  
*Commission.*

#### APPENDIX NO. 2.

##### AMENDMENT TO THE LAW—ANNEXATION.

The following bill was prepared for the General Assembly of 1897, and is a revise of one prepared for the General Assembly of 1895. The original reading in ..... can be omitted.

Further change to cover territory situated in two counties may be required. L. E. C.

##### A BILL

For an act to amend "An act to create Sanitary Districts and to remove obstructions in the Desplaines and Illinois Rivers," approved May 29, 1889, in force July 1, 1889, and amended by an act in force July 1, 1895.

**SECTION 1.** *Be it enacted by the People of the State of Illinois, represented in the General Assembly,* That an act entitled "An act to create Sanitary Districts and to remove obstructions in the Desplaines and Illinois Rivers," approved May 29, 1889, in force July 1, 1889, and amended by an act in force July 1, 1895, be and the same is hereby amended by adding Sections 28 (and 29) so as to read as follows:

**SECTION 28.** Any new territory lying adjacent to any Sanitary District organized under this act which is susceptible of drainage in a natural and proper manner through any main or auxiliary channel of said original district by means of a channel, channels or adjuncts subsidiary thereto, may be annexed to said original district in the manner following, that is to say:

Any two hundred (200) (ten per centum of the) legal voters resident within the new territory proposed to be annexed may petition the County Judge of the county in which said original district is situated to submit the

question whether such proposed new territory shall be annexed to said original district to the legal voters of both said original district and of said proposed new territory. Said County Judge shall organize a commission, as provided in Section 1 of this act, which shall have the power to consider and determine the boundaries of the new territory proposed to be annexed, after a hearing of all the persons interested at a meeting held by said commissioners upon notice given and provided in Section 1. After such determination by said commissioners of the boundaries of said new territory proposed to be annexed, said County Judge shall submit the question of such annexation to the legal voters of the proposed new territory and of the original district at the first election held thereafter at which all legal voters of said new territory and original district are entitled to vote. Notice of this election shall be given and the result thereof be spread upon the records of the County Court, as provided in Section 1 of this act, and all the other provisions of said Section 1, so far as they are applicable, shall govern in all matters pertaining to the annexation of new territory. The ballot shall be printed:

For annexation to Sanitary District	Yes <input type="checkbox"/>
	No <input type="checkbox"/>

If a majority of the votes cast on that question in the said proposed new territory and in said original district shall be in favor of annexation, then said proposed new territory shall thereafter constitute and remain a part of said Sanitary District; and the powers and duties of the board of trustees of said district shall extend over said new territory so annexed the same as though it had always formed part of said Sanitary District.

(Said commissioners shall, at the hearing to determine boundaries, also consider and determine the conditions upon which any new territory shall be annexed.)

#### SCHEME NO. 2.

##### IN ONE PART.

##### Introductory Summary.

Scheme No. 2 treats the Chicago and Calumet problems as a joint proposition; the North Shore solution standing as in Scheme No. 1.

It contemplates a "moderate improvement" of the Chicago River and the passing of such water therein as may not unduly injure navigation, with an auxiliary supply by the Thirty-ninth Street conduit, all water not furnished from these sources to the Main Channel to be supplied through a branch channel to the Calumet River,

the aggregate to equal the capacity of the Main Channel, or outlet, below the junction.

Two routes for the branch channel are estimated, the Calumet Northern canal, from the vicinity of Summit southeasterly to the Calumet at One Hundredth Street, and the Sag Valley canal from Sag Station via Blue Island to the Calumet, near the outlet of Lake Calumet. Each of these canals is to be bridged and otherwise treated as in the Main Channel.

Each route is estimated under two propositions; one in which the Thirty-ninth Street conduit flows by gravity, and the other in which said conduit is operated by pumping works. Under the latter proposition, certain improvements are required in the South Fork in order to maintain navigation.

The Northern route permits certain changes of plan in the sewer systems within the Sanitary District on the south, which have an estimated value of \$2,000,000 for the gravity proposition by Thirty-ninth Street, and of \$1,350,000 for the pumping proposition.

The North Branch cut-off is expedient, in order to reduce the volume tributary to the main river in flood season.

The Illinois & Michigan Canal is to be maintained and operated by pumping works to a capacity of 24,000 feet for the eight months of navigation and estimates are submitted therefor.

The water supply in cubic feet per minute for the four conditions is made up as follows:

PROPOSITION.	Main Channel.	Chicago RIVER.	39th Street Conduit.	Branch Canal.
(A) Calumet Northern Canal .....	829,124	190,000	40,194	599,100
(B) Calumet Northern Canal .....	816,000	190,000	128,888	497,120
(C) Sag Valley Canal .....	919,020	190,000	40,194	688,826
(D) Sag Valley Canal .....	898,500	190,000	128,890	579,620

The aggregate estimates are:

THIRTY-NINTH STREET CONDUIT.	Calumet Northern.	Sag Valley.
Operating by gravity .....	26,273,160	40,223,512
Operating by pumping .....	28,186,892	36,392,728

In the absence of exact surveys and test pits, the unit prices on excavation are assumed at the average for the Main Channel between Robey Street and the range line at Summit, for the Calumet Northern Canal; and at the average for the channel between Summit and Sag, for the Sag Valley Canal. This assumption interprets the physical conditions as nearly as they can now be determined.

The Supplement discusses flood volumes with particular reference to the requirements below the Main Channel and through Joliet.

Other than is herein particularly described, the conditions are as set forth in Scheme No. 1.

All as shown herein in greater detail.

Chicago, April 8, 1901.

#### DEFINITION.

Scheme No. 2 proposes:

1. A "moderate improvement" of the Chicago River from Lake Michigan to Robey Street and

such a volume of water therein as shall not be inconsistent with navigation.

2. (A) Such additional water by way of the South Fork as the Thirty-ninth Street conduit will produce by a gravity flow.

(B) Such additional water by way of the South Fork as the Thirty-ninth Street conduit will produce by means of a pumping station.

3. A branch canal (the Calumet Northern Canal) from the Main Channel or outlet, near Summit, southeasterly to the Calumet River at One hundredth Street and by said river to Lake Michigan, said canal to have such capacity as will, in conjunction with the supply by way of the Chicago River and the Thirty-ninth Street conduit through the Main Channel, develop the full capacity of the Main Channel or outlet as now completed below Summit.

4. An alternative route for the branch canal (the Sag Valley canal) from the Main Channel or outlet, near Sag Station, through Sag Valley to the Calumet River near Blue Island and by said river and by cut-off across the foot of Lake



Calumet to the Calumet River at or near the forks and by said river to Lake Michigan, said canal to have such capacity as will, in conjunction with the supply received from Chicago as stated in paragraph 3, develop the full capacity of the Main Channel or outlet below Sag.

5. The North Shore and the North Branch of the Chicago River to be treated as provided for in Scheme No. 1; also, Calumet flood diversions.

6. Such treatment of the Illinois and Michigan Canal as will satisfy all existing agreements and decrees of court.

All general lateral questions, except as modified herein, to be the same as for Scheme No. 1.

#### *Moderate Improvement—Chicago River.*

The "Moderate Improvement" of the Chicago River has been defined at length in Scheme No. 1, Part I., and an estimate submitted for that portion between Lake Michigan and Seventeenth Street. It is virtually equivalent of what has already been produced (certain minor corrections are assumed) at the by-passes in the vicinity of Van Buren Street and at the two bridges at and in the vicinity of Taylor Street. This requires a certain minimum width in straight reaches and such extra width in bends as will enable the standard boat to sweep the bends without diminishing the net section required for the flow of water. This is taken at 190,000 feet per minute, producing a velocity of 1.15 miles per hour, passing the standard boat going up-stream.

The two permanent works which have determined the scale of improvements are practically completed and represent a gross capital as follows:

By-passes in the vicinity of Van Buren Street.....	\$ 617,558.73
Bridges, Taylor Street and Chicago Terminal Transfer Railway.....	549,408.96
	\$1,166,967.69

The capitalized value of certain leases (\$8,058.34 per year) are included in the cost of the by-passes. In addition, the expenditures and obligations between the lake and Seventeenth Street are, for dredging and docking, \$172,974.19, and for other purposes, \$124,463.08. The total for this reach of river, including the two permanent works above, is \$1,404,404.96.

The expenditures and obligations between Seventeenth Street and Robey Street to December 31, 1900, are \$514,590.65, the most of which is for dredging, docking and land, and \$133,111.92 for dredging the South Fork.

The total is \$2,117,107.53, all practically for a moderate improvement, and on this interpretation is based the project herein designated as Scheme No. 2.

#### *Capacity and Hydraulic Grade.*

The elevation at South Fork Junction for a volume of a 190,000 feet per minute is deduced from actual observations, and is taken at 0.91 feet below datum when the lake stands at datum. The gravity flow through the Thirty-ninth Street Conduit for this elevation is taken at 40.004 feet per minute, passing by way of the South Fork, and the united flow, thence to the junction of the branch canal near Summit, is 230,004 feet per minute. The capacity of the Main Channel below Summit Junction, is 829,194 feet per minute on a depth of 24.28 feet at Willow Springs.

The capacity of the Thirty-ninth Street Conduit by pumping is taken at 128,880 cubic feet per minute as given in the letter of the Commissioner of Public Works, City of Chicago, under date of February 19, 1901. The united flow is 818,880 feet per minute, and the capacity of the Main Channel below Summit Junction is 818,000 feet per minute on a depth of 24.015 at Willow Springs. The proposition which involves the operation of the Thirty-ninth Street Conduit by gravity is hereinafter designated (A); and by pumping (B).

The water supply in feet per minute may be summarized as follows:

	(A)	(B)
Depth in rock cut, W. S.	24.28	24.015
Capacity, below junction	829,194	816,000
By Chicago River ... ..	190,000	100,090
By 39th Street Conduit...	40,004	128,880
Calumet Northern Canal.	599,100	49,120

The hydraulic grade at characteristic localities is as follows:

MAIN CHANNEL.	Dist.	Width.	A.	B.
S. F. Junction....	5.57	.....	-0.91	-0.91
Robey Street.....	6.02	200	-0.955	-0.98
Summit Junction....	13.08	110	-1.19	-1.44
Willow Springs....	19.28	202	-1.92	-2.185
Lockport.....	34.05	160	-5.82	-6.085

The distance from Summit Junction to Calumet Pier light is (91,900 feet) 17.41 miles; in canal, (82,200 feet) 15.57 miles; in harbor, (9,700 feet) 1.84 miles. With the above data the elements of the channel are deduced as follows:

	A.	B.
Grade of bottom, Summit.....	-25.39	-25.39
Grade at harbor.....	-24.30	-22.95
Width of canal on bottom, side slopes 2 to 1.....	190	140
Harbor prism.....	268x26	210x26

The declivity in South Fork, from the mouth of the conduit at Halsted Street some two miles to the junction, is estimated at 0.28 foot for a flow of 128,880 feet per minute.

#### Specifications.

Chicago River—Moderate improvement, as defined in Scheme No. 1, Part I.

South Fork—(B) To be so improved as to permit a boat smaller than standard (450 foot long) to pass with such net section as will not produce a higher velocity than the limit hereinbefore given; said improvement to be made for 128,880 feet per minute, the pumping capacity of the Thirty-ninth Street Conduit. No improvement required for Thirty-ninth Street Conduit operating by gravity.

Main Channel: No change from Robey Street to Summit Junction. Enlargement to 202 feet on bottom and to conform to channel below Summit for the 800,000 feet (0.57) between junction point and Summit.

Calumet Northern Canal: Right of way 1000 feet in width; prism as hereinbefore given; viz. (A) 190 feet on bottom with side slopes of 2 to 1; harbor, 293 feet wide and 26 feet deep, with sheet pile docks and 18 feet at dock line. (B) 140 feet on bottom with side slopes of 2 to 1; harbor, 210 x 26 feet and treated as in (A).

Price of excavation taken at the average for main channel, Summit to Robey Street.

Bridging: Canal to conform to requirements for main channel; capitalization 80 per cent added to railway bridges, as fixed bridges, same as main channel; but the capitalization on canal as swing bridges, not estimated; Calumet Harbor to conform to Chicago Harbor; all bridges to be swing bridges.

Pumping station, to be located at Thirty-ninth Street and Illinois Central Railway; otherwise as hereinafter given.

#### Estimates.

Chicago River: "Moderate improvement" from Lake Michigan to Robey Street, 6.02 miles.....	\$ 1,657,510
Lake Michigan to Seventeenth Street 3.37 miles.....	1,049,344
Seventeenth Street to Robey Street, 2.85 miles.....	608,166

Real estate, 86,272 square feet.....	\$ 96,496
Improvements.....	7,000
Docking, 4,503 feet.....	112,375
Excavation, 828,315 yards.....	200,595
Bridging.....	190,500
Special, Railway track..	1,000

The aggregate, Seventeenth to Robey Street, is divided in reaches, as follows:

Seventeenth to Halsted Street, 5,150 feet.....	\$421,322
Halsted Street to Junction, 5,900 feet....	140,398
Junction to Robey Street, 2,940 feet.....	46,441

The tunnel lowering is not estimated.

Note:—The above does not include \$56,114.71 for work contemplated in connection with bridges recently let at Canal Street and Main Street, not covered in list of obligations.

South Fork: (B).....	\$ 162,030
Real estate and improvements, 43,384 square feet.....	43,384
Docking, 2,133 feet.....	53,459
Excavation, 59,157 yards, at 84 cents ...	50,196
Bridging.....	15,000

Main Channel.....	\$ 179,485
Excavation (near Summit), 517,939 yards...\$	129,435
Controlling Works, completing.....	50,000

Calumet Northern Canal: (A) 190 feet on bottom. Summit Junction to Panhandle Railway, 6.80 miles.....	\$ 6,322,877
Right of way, 737.2 acres.....	715,095
Excavation, 16,482,926 yards.....	4,120,582
Bridging, 8 roadway, 4 railway.....	1,487,200

Panhandle Railway to Sanitary District line, 4.74 miles.....	\$ 6,102,229
Right of way, 561.3 acres.....	2,028,535
Excavation, 9,570,777 yards.....	2,392,694
Bridging, 7 roadway, 5 railway.....	1,662,000

Sanitary District line to Calumet River, 4.03 miles.....	\$ 4,847,505
Right of way, 470 acres.....	1,417,500
Excavation, 6,373,619 yards.....	1,593,405
Bridging, 6 roadway, 7 railway.....	1,836,600

Summit Junction to Calumet River, 15.57 miles.....	\$ 17,273,611
--	---------------

Calumet Northern Canal: (B) 140 feet on bottom.

Summit to Panhandle Railway, 6.80 miles..	\$ 5,102,229
Right of way, 737.2 acres.....	715,095
Excavation, 12,556,402 yards.....	3,359,101

Bridging, 8-roadway, 4 railways.....	\$ 908,900
Panhandle Railway to Sanitary District line, 4.74 miles.....	\$ 5,106,011
Right of way, 561.3 acres.....	\$ 2,028,585
Excavation, 7,787,905 yards.....	1,946,976
Bridging, 7-roadway, 5 railways.....	1,130,500

Sanitary District line to Calumet River, 4.03 miles.....	\$ 3,981,905
Right of way, 470 acres.....	\$ 1,417,500
Excavation, 5,118,019 yards.....	1,278,505
Bridging, 6-roadway, 7 railways.....	1,234,900
Summit Junction to Calumet River, 15.77 miles.....	\$ 14,140,312
Calumet harbor, 1.84 miles.	

PRISM.	A.		B.	
	268x26.		210x26.	
Right of way, acres.....	5.5	\$199,105	2.48	\$ 93,765
Excavation, yards.....	521,381	78,207	164,667	84,700
Docking, feet.....	2,242	56,050		
Bridging, railways.....	3	408,000	3	273,000
Bridging, roadways.....	2	172,000		
Total.....		\$811,362		\$ 361,465

#### The Thirty-ninth Street Conduit.

(A) The flow therein to be by gravity; the pumping station to be operated for intercepting sewer service only as contemplated in Scheme No. 1, and set forth in Part I.

The estimate may be recapitulated as follows:

Cost of completing conduit.....	\$ 794,310
Cost of station and appurtenances.....	850,000
Yearly charge (\$60,638) capitalized at 4%.....	1,515,825

Gross capital.....	\$ 2,660,135
Deduction for change in plan.....	2,000,000

To be charged in estimate.....\$ 660,135

The above deduction is approximate and is set forth at length in Scheme No. 1, Part II. It measures the tangible value due to the special location of the northern route.

(B) The volume to be passed through the conduit to be 128,880 cubic feet per minute, 120,000 feet of lake water and 8,880 feet of sewage, the head in conduit to be 9.89 feet, the cost of the station to be \$554,380, all as set forth in letter of Commissioner of Public Works, February 19, 1901.

The cost of station as above given does not provide any reserve. To conform to the other pumping stations which form part of the several projects and to insure perpetual service equal to gravity, a reserve of at least one unit is essential, and the cost of the station has therefore been increased by one-third and is taken for the purpose of this estimate at \$789,178.

The price of coal is taken at \$2.25 per ton.

Pumping head in feet (9.26).

Loss of head in conduit.....	9.89
Loss of head in South Fork.....	0.28

Fall in Chicago River..... 0.91

In addition to above, the dry weather flow must be lifted from -16.25 to mean lake level, or 17.85 feet, and all storm water from -8.00 to mean lake level, 9.6 feet.

The yearly charge may be computed by the rule set forth in Supplement to Part I, Scheme No. 1, and is taken at \$230,076.

Cost of completing conduit.....	\$ 794,310
Cost of station and appurtenances.....	739,178
Yearly charge capitalized at 4%.....	5,751,900

Gross capital.....	\$7,285,388
Deduction for change in plan.....	1,350,000

To be charged in estimate.....\$5,935,388

The above deduction is approximate. The change in plan effects a small reduction in cost of station due to a small dry weather flow and less elaborate provision for storm water. As the total volume is unchanged, the reduction in operation is confined to the lessened volume and smaller heads between the wells of the intercepting sewers and mean lake level. Nearly all the economies due to the change of plan are offset by the cost of station and operation for the Southern district.\*

*I. & M. Canal Pumping Station.*

By agreement and by decree of court the Sanitary District is obliged to maintain a navigable depth of six feet by pumping from April 1st to November 15th—say 240 days. The actual experience and tests of the season of 1900, gives the elevation at Bridgeport at something under 2.5 feet above datum. It is taken for purposes of computation at 2.3, corresponding to a volume of 24,000 feet per minute in the canal.

Under the new conditions this station is to be located at Summit, eight miles from Bridgeport. The declivity in canal is taken at 0.1 foot per mile, and the corresponding elevation in canal at Summit will be 0.8 less or 1.5 feet above datum. The declivity in main channel may be taken at 1.2 (A) and 1.45 (B). The lift at station will therefore be: For (A) 2.7 feet and (B) 2.95 feet. Coal is taken at \$2.25 per ton and cost of station and lock at \$100,000.

	(A)	(B)
Yearly charge is.....	\$ 13,267	\$ 16,633
Capital charge.....	380,175	408,125
Gross capital.....	480,175	509,125

No estimate is made for deepening the prism between Bridgeport and Summit as would be required under a literal interpretation.

*North Branch Cut-Off.*

The largest measured flood in the North Branch is 110,000 feet per minute from 162 miles above Clybourn Place. When the North Shore improvements are completed so as to make tributary the lake shore from Lakeside Station to Lincoln Park, the total area to the mouth of the river at the Forks in the heart of Chicago will be 186 miles. After all the water-shed is drained and developed, and the urban territory fully sewered, it is estimated that the extreme flood at the mouth will reach 308,000 feet per minute, without contributions of lake water through canals and conduits.

This volume must be reduced as the moderate improvement is not adequate to accommodate the same and cannot be so made by manipulating the controlling works, owing to the Calumet Branch. A flood water diversion is therefore estimated.

It is practicable to divert that portion of the North Branch basin above Morton Grove, some ninety square miles, to Lake Michigan by a channel from the East Fork in New Trier across the ridge near Lakeside Station in the northern limits of Winnetka. No exact survey has been made, but a consideration of available data enables an approximate estimate for right of way,

excavation, bridging, wires, etc., at \$460,000, taken in round numbers at \$500,000.

Nearly half the basin may thus be cut off, but it is that portion of slowest drainage, under future conditions. The remainder will be more largely urban with a maximum run-off at the rate of 228,000 feet per minute, but the flood duration will be shortened. This extreme will occur in occasional years at rare intervals.

**THE NORTH SHORE ESTIMATE.**

The project is the same as for Scheme No. 1. Parts I and III, and includes the North Branch and the Lawrence Avenue Sewer outfall. The estimate is recapitulated as follows:

Completing Lawrence Avenue Conduit as a sewer outfall only.....	\$ 1,008,400
Improving North Branch.....	339,432
The North Shore Canal.....	3,081,760

Total, gross capital.....\$ 4,410,592

The estimate above is the same for all schemes.

**CALUMET FLOOD DIVERSION.**

The same as in Scheme No. 1 and set forth in Part II. The estimate is \$300,000.

**SUMMARY OF ESTIMATES.**

Item.	(A)	(B)
Chicago River "Moderate Improvement"....	\$ 1,637,510	\$ 1,657,510
South Fork.....	000	162,030
Main Channel.....	179,485	179,485
Calumet Northern Canal	17,273,611	14,140,312
Calumet Harbor.....	811,362	391,465
Thirty-ninth Street Conduit, net.....	660,135	5,935,383
Illinois and Michigan Canal Station.....	480,175	509,125
Calumet Flood Diversion	300,000	300,000
North Branch Cut-off....	500,000	500,000
North Shore and North Branch, net.....	4,410,592	4,410,592
Totals.....	\$26,273,160	\$28,185,892

**ALTERNATIVE.**

The alternative does not differ from the foregoing except in substituting the Sag Valley Canal for the Calumet Northern Canal and omitting the change of plan for the Forty-ninth Street intercepting sewer district, which was dependent on the northern route, and the shifting of the canal pumping station to Sag. The same propositions are involved as before, viz., the Thirty-ninth Street conduit operated by gravity and designated (C), and the conduit operated by pumping station and designated (D). The enlargement of the Main Channel near Summit is not required.

## CAPACITY AND HYDRAULIC GRADE—ALTERNATIVE.

	C.	D.
Depth of rock cut at Sag.....	26.15	25.74
Capacity, below junction.....	919,030	698,509
By Chicago River.....	190,000	190,000
By 39th Street conduit.....	40,094	128,580
Sag Valley canal.....	688,926	579,520

The hydraulic grade at characteristic localities is as follows:

MAIN CHANNEL.	Dist.	Width.	C.	D.
S. F. Junction.....	5.97	.....	-0.91	-0.91
Robey Street.....	6.02	200	-0.955	-0.98
Summit.....	13.78	110	-1.215	-1.49
Willow Springs.....	19.28	202	-1.26	-1.58
Sag Junction.....	34.20	160	-1.35	-1.76
Lockport.....	34.05	160	-3.95	-4.36

The distance from Sag Junction to Calumet Pier light is (143,800 feet) 27.24 miles; in canal, (113,830 feet) 21.57 miles; in harbor, (39,670 feet) 5.67 miles. That portion of the Calumet River from the slough at Blue Island to the cut-off at Wildwood is virtually canal, and is so called in view of the diversion of the stream at the south limits of the Calumet district.

With the above data, the elements of channel are deduced as follows:

	C	D
Grade of bottom, Sag...	-27.50	-27.50
Grade at harbor.....	-26.15	-25.74
Width of canal on bottom, side slopes 5 to 3..	238 feet	175 feet
Harbor prism.....	353 x 26 feet	268 x 26 feet

## SPECIFICATIONS. (ALTERNATIVE).

Sag Valley Canal—Right of way (1,330 feet), one-quarter mile wide from Sag to Calumet River, and from Wildwood by cut-off across foot of Lake Calumet; prism, as hereinbefore given, viz.:

(C) 238 feet on bottom, with side slopes of 5 to 3; harbor, 353 feet wide and 26 feet deep, with sheet-pile docks and 18 feet at dock line.

(D) 175 feet on bottom, with side slopes of 5 to 3; harbor, 268 feet, and treated as in (C).

Unit prices—All available information indicates that the excavation will average the same as for the main channel between Sag and R. 12-13 line, near Summit, and it is assumed

that there will be substantially the same proportion of rock and other classes of material. As a compromise of all the conditions the side slopes are assumed at 5 to 3 on a uniform prism. How nearly this is the equivalent of actual conditions will not be known until elaborate surveys with test pits are made. The unit price is determined from the total cost of completed channel, divided by the total yards of excavation.

No estimate for right of way is made for the channel between Blue Island and Wildwood, along the Calumet River. Such right of way will be required, and will be an off-set to any cheaper excavation found on east end of canal prism.

## ESTIMATES—ALTERNATIVE.

Sag Valley—(C) 238 feet on bottom.  
Sag Junction to C., R. I. & P. Ry.,  
14.49 miles.....\$ 16,871,316  
Right of way, 2,281.8  
acres.....\$ 305,068  
Excavation, 23,659,885  
yards..... 15,137,948  
Bridging, 8 roadway,  
2 railway..... 1,428,300

C., R. I. & P. Ry. to Calumet River,  
7.08 miles.....\$ 9,271,958  
Right of way, 320  
acres.....\$ 640,000  
Excavation, 12,096,129  
yards..... 5,443,268  
Bridging, 7 roadway,  
9 railway..... 3,188,700

Sag Junction to Calumet River,  
21.57 miles.....\$ 26,143,274

Sag Valley Canal—(D) 175 feet on bottom.  
Sag Junction to C., R. I. & P. Ry.,  
14.49 miles.....\$ 13,106,682  
Right of way, 2,281.8  
acres.....\$ 305,068  
Excavation, 26,659,809  
yards..... 11,926,914  
Bridging, 8 roadway,  
2 railway..... 804,700

C., R. I. & P. Ry. to Calumet River,  
7.08 miles.....\$ 6,622,552  
Right of way, 320  
acres.....\$ 640,000  
Excavation, 9,460,336  
yards..... 4,257,152  
Bridging, 7 roadway,  
9 railway..... 1,795,400

Sag Junction to Calumet River,  
1.57 miles.....\$ 19,799,324

Calumet Harbor, 5.67 miles.

	(C.)		(D.)	
PRISM.	853x26 feet.		268x26 feet.	
Right of way, acres.....	79.4	\$1,908,433	37.5	\$ 543,789
Excavation, yards.....	5,795,789	1,080,703	3,746,539	696,425
Docking, feet.....	5,758	143,960	3,824	95,600
Bridging, railways.....	5	906,000	5	510,000
Bridging, roadways.....	5	785,000	5	480,000
Total.....		\$4,083,036		\$2,280,814

Main Channel: Completing Controlling Works, \$50,000.

**THIRTY-NINTH STREET CONDUIT—  
(ALTERNATIVE).**

The deductions on account of the change of plans for the Calumet Northern Canal are not applicable to the Sag Valley Canal.

(C). Gross capital.....\$2,660,135  
(D). Gross capital.....7,285,383

**I. & M. CANAL PUMPING STATION—ALTERNATIVE.**

Assume elevation at Bridgeport to be 2.3 feet above datum, and the distance to Sag pumping station at 19 miles on a declivity of 0.10 foot per mile:

	(C)	(D)
Elevation in canal, Sag.....	+0.40	+0.40
Elevation in main channel, Sag.....	-1.85	-1.76
Pumping head.....	1.75	2.16

Volume of water, 24,000 feet per minute, and the price of coal, \$2.25 per ton.

	(C)	(D)
Yearly charge.....	\$ 12,757	\$ 13,887
Gross capital.....	418,925	447,175

No estimate is made for canal deepening from Sag to Bridgeport.

**SUMMARY OF ESTIMATES.**

Item.	C	D
Chicago River "moderate improvement".....	\$ 1,657,510	\$ 1,657,510
South Fork.....		162,080
Main Channel.....	50,000	50,000
Sag Valley Canal.....	26,143,274	19,799,274
Calumet Harbor.....	4,063,066	2,280,814
Thirty-ninth Street conduit.....	2,660,135	7,285,383
I. & M. Canal Station.....	418,925	447,175
Calumet Flood Diversion.....	300,000	300,000
North Branch cut-off.....	500,000	500,000
North Shore and North Branch, net.....	4,410,585	4,410,582
Totals.....	\$40,223,512	\$36,892,728

**THE TWO ROUTES:**

The aggregate cost of the two propositions by each of the two routes is recapitulated as follows:

THIRTY-NINTH STREET CONDUIT.	Calumet Northern.	Sag Valley.
Operating by gravity..	\$26,973,180	\$40,223,512
Operating by pumping.	23,185,892	36,892,728

**MAPS AND DIAGRAMS.**

The maps and diagrams pertaining to scheme No. 1, with some modifications, exhibit all matter special to scheme No. 2.

## SUPPLEMENTS—SCHEME NO. 2.

The following notes were not prepared in time to form a part of Exhibit of Scheme No. 1, but as they apply to any scheme, they are entered here:

## FLOOD VOLUME—JOLIET.

The possible flood volume at Joliet is deduced on the theory of "normal basin ratios" and the known maximum of the Desplaines River below Riverside.

Scheme No. 1—The area of the Desplaines River above Dam No. 1 (Summit spillway closed) is 717 square miles. The area across the Illinois and Michigan Canal and tributary thereto is 184 square miles, including the Sag diversion and the area to the west of the proposed pumping station on the Calumet Northern Route. This area will not differ materially by the Sag Valley route so long as the Illinois and Michigan Canal is retained to Bridgeport.

Some of this area on the upper canal reaches may not be so quick in drainage in the present condition of the canal, but it forms a small proportion of the total, and will not materially change the result. The total area may be taken at 901 square miles above Dam No. 1, with a flood expectation of 1,007,000 cubic feet per minute.

The Indiana, Calumet and Southeastern portion of Sanitary District, a total of 150 square miles, east of the pumping station, are so peculiar in character as to give a very moderate flood expectation, not exceeding 128,000 feet per minute, occurring in occasional years only. Emergency pumping of 90,000 feet would probably care for it under ordinary conditions and as satisfactorily as it will care for the ebb and flow between Lake Michigan and the interior water expanses, under violent lake fluctuations. It may therefore be assumed that pumping from the Calumet will add 60,000 feet to above.

The effects of flood waters from the territory tributary to the Main Channel will be to raise the flow line and increase the discharge slightly. At standard high lake (3.3 feet above datum) this effect is assumed at 0.5 feet at Willow Springs, due to a flood expectation of 408,000 feet from 365 miles.

The expectation at Joliet may be recapitulated as follows:

Natural flood, Desplaines and Illinois and Michigan Canal basin....	1,007,000
Illinois and Michigan Canal, pumping..	60,000
Main Channel, or outlet.....	1,020,000
Total .....	2,087,000
The extreme high water of Lake Michigan	

occurred in 1838 and is 1.55 feet above the standard given.

The normal extreme at Joliet may be taken at 2,100,000, or 35,000 feet per second.

Scheme No. 2 is considered on the basis of the Calumet Northern Canal, the North Branch cut-off and the Illinois and Michigan Canal restricted to the tributary territory below Summit. The Desplaines and Canal area will be 870 miles. The area tributary to the Main Channel and the Calumet Branch is 365 miles, some of which is tardy drainage. The flood expectation at Joliet under this combination is estimated at 1,994,000, or 2,000,000 in round numbers.

Scheme No. 3, Sag Valley Canal, gives an area tributary to canals of 565 miles, and for Desplaines River and Illinois and Michigan Canal 763 miles to Dam No. 1. The flood expectation is 2,000,000 feet.

It will be noted that the several projects vary the aggregate at Joliet between 2,000,000 and 2,100,000 cubic feet per minute, or from 33,000 to 35,000 feet per second, and greater extremes are possible.

## THE TAIL-RACE—JOLIET.

The Tail-Race is a general term covering the distance of some eight miles between the Controlling Works and Lake Joliet, through the City of Joliet. The expenditures, obligations and work required to complete the existing project are,..... \$ 1,532,578 92  
And for land..... 708,602 66

Total, Joliet reach. .... \$ 2,241,181 58

A large part of this sum pertains to the work within the City of Joliet and for the purpose of maintaining a canal crossing in the basin and creating certain water-power in connection therewith.

Material and costly changes will be required in the Joliet lay-out, but as these pertain alike to any proper scheme, the situation has not been studied with a view to a change in plan and estimates therefor.

## SCHEME NO. 3.

## IN TWO PARTS.

## Introductory Summary.

Scheme No. 3 in essential relations, is substantially the same as Scheme No. 2, differing particularly in the treatment and in the capacity of the Chicago River, which is to be intermediate between the "radical improvement" of Scheme No. 1 and the "moderate improvement" of Scheme No. 2; and also, in the prism and capacity of the branch canal to Calumet Harbor. Two plans for the Chicago

River are considered and herein exhibited in two parts.

Part I. pertains to a modification of the "official plan" for a 300-foot river from Lake Michigan to Robey Street. The recent bascule bridges are provided with ample by-passes with easy runs and new bridges are to be mounted on the dock line so as to give the full

channel opening. The river is to have a depth of 26 feet for a central width of 100 feet and 16 feet at the dock line, the ordinary sheet pile dock to be used where dock line is changed.

The water supply in cubic feet per minute is distributed as follows:

Proposition	Main Channel	Chicago River	Thirty-ninth Street Conduit	Branch Canal
(E) Calumet Northern Canal.....	816,000	390,000	30,770	396,230
(F) Calumet Northern Canal.....	796,960	390,000	128,880	277,080
(G) Sag Valley Canal.....	885,900	390,000	30,770	465,130
(H) Sag Valley Canal.....	849,900	390,000	128,880	381,080

Part II. pertains to a substitute for the "official plan" and contemplates a river 280 feet wide and 24 feet deep from Lake Michigan to Lake Street; thence 180 feet wide and 24 feet deep with masonry dock walls, from Lake to Twelfth Street; thence 280 feet wide and 22½ feet deep, ordinary dock for wide river. Condemnation of dock rights and a higher velocity are considered for the narrow river.

The water supply in cubic feet per minute is distributed as follows:

PROPOSITION.	Main Channel.	Chicago River.	Thirty-ninth Street Conduit.	Branch Canal.
(J) Calumet Northern Canal.....	806,390	453,600	30,770	322,020
(K) Calumet Northern Canal.....	811,080	453,600	128,880	228,600
(L) Sag Valley Canal.....	868,790	453,600	30,770	384,420
(M) Sag Valley Canal.....	869,960	453,600	128,880	277,500

The aggregate estimates are:

PLAN.	Thirty-ninth Street Conduit.	Calumet Northern.	Sag Valley.
Official.....	Operating by gravity.....	27,796,380	34,534,877
Official.....	Operating by pumping.....	30,236,181	34,512,573
Substitute.....	Operating by gravity.....	30,023,065	34,764,074
Substitute.....	Operating by pumping.....	32,519,621	35,961,424

The North Branch cut-off is not required in Scheme No. 3. The general matter is covered in preceding exhibits.

All as shown herein in greater detail.

CHICAGO, April —, 1901.



## SCHEME NO. 3.

Scheme No. 3 proposes an improvement of the Chicago River intermediate between the radical improvement of Scheme No. 1 and the moderate improvement of Scheme No. 2, with such flow of water therein as shall be consistent with navigation; a certain additional supply to the Main Channel by way of the Thirty-ninth Street Conduit by gravity and also by pumping; the further water required to develop the full capacity of the Main Channel below the point of junction to be obtained by a branch canal from Calumet harbor, either by the northern route or by the Sag Valley route. The North Shore treatment is the same as in Scheme No. 1 and in Scheme No. 2. In all other respects, except as herein modified, the treatment to be as stated in preceding schemes.

Scheme No. 3 is presented in two parts. Part I. is a modification of the official plan for a 200-foot river with bascule bridges. Part II. (substitute) provides an 180-foot river without dock rights, from Lake Street to Twelfth Street, and a 280-foot river elsewhere.

## PART I.

## THE OFFICIAL PLAN.

The official plan (letter of Chief Engineer, January 18, 1901) contemplates a 200-foot river between dock lines, 16 feet at dock, increasing to 26 feet at 50 feet out, 26 feet for a central width of 100 feet, the cross-section to be 4,700 square feet; bascule bridges with 140 feet clear opening between pile protection and a depth of 26 feet for the full width of opening, the cross-section in opening to 3,640 square feet; by-passes behind piers to have an aggregate cross-section of 480 square feet.

Capacity, official plan: Neglecting the by-passes the net section is 2,640 feet (deducting 1,000 feet for standard boat) and the capacity 277,200 cubic feet per minute at the limiting velocity.

The modified plan contemplates the development of the full cross-section of 4,700 square feet at all points by mounting bascule bridges on the dock line so as to give the full channel opening, and by liberal by-passes with easy runs thereto at bridges in place, the aggregate cross-section at said bridges with by-passes to be 5,000 square feet normal to the vessel course.

The capacity on modified plan, at the limiting velocity, is 388,500 feet per minute, taken at 390,000 feet in round numbers.

The other features of the official plan are:

The Lawrence Avenue conduit as a means of circulating the North Branch, modified herein to a sewer outfall only.

The Thirty-ninth Street conduit operating to a capacity of 120,000 feet of lake water, not yet fully covered by agreement with the city.

The Sag Valley Canal as the eventual resource for developing the full capacity of the Main Channel, though not yet the subject of official action and entirely tentative.

## Capacity and Hydraulic Grade.

The distribution of water supply, the hydraulic grade and the elements of the branch channels to the Calumet are made up as set forth in Scheme No. 2. For the Lake at datum the declivity to Santa Fe Junction is computed at 0.52 feet for a flow of 390,000 feet per minute, giving a gravity flow of 30,770 feet by the Thirty-ninth Street conduit. The pumping capacity is 128,880 feet.

The proposition which involves the operation of the Thirty-ninth Street conduit by gravity is hereinafter designated (E); and by pumping, (F).

The water supply in feet per minute may be summarized as follows:

	(E)	(F)
Depth in rock cut, W. S. ....	34.01	28.58
Capacity below junction.....	816,000	795,990
By Chicago River.....	390,000	390,000
By 39th Street Conduit.....	30,770	128,880
Calumet Northern Canal.....	395,230	277,060

The hydraulic grade at characteristic localities is as follows:

MAIN CHANNEL.	Dist.	Width.	(E)	(F)
S. F. Junction.....	5.37	200	-0.52	-0.52
Robey Street.....	6.02	*200	-0.60	-0.64
Summit Junction.....	13.03	110	-1.44	-1.87
Willow Springs.....	19.28	202	-2.19	-2.62
Lockport.....	34.05	160	-6.09	-6.52

\*280 in estimates.

The distance from Summit Junction to Calumet pier light is (91,900 feet) 17.41 miles; in canal (82,300 feet), 15.57 miles; in harbor (9,700 feet), 1.84 miles.

With the above data the elements of the Channel are deduced as follows:

	(E)	(F)
Grade at bottom, Summit.....	-25.39	-25.39
Grade at harbor.....	-23.95	-23.51
Width of Canal on bottom, side slopes 2 to 1.....	122.	67.
Harbor prism (present prism sufficient).....		

## SPECIFICATIONS.

Chicago River—To be as already set forth, Lake Michigan to Santa Fe Junction; thence 280 feet wide to Robey Street; sheet pile docking.

South Fork—(F) to be as specified under Scheme No. 2.

Main Channel—To be as specified under Scheme No. 2.

Calumet Northern Canal—Right of way, (E) 800 feet in width; (F) 600 feet in width; prism as hereinbefore given; viz., (H) 122 feet on bottom with side slopes of 2 to 1; harbor prism sufficient; (F) 67 feet on bottom with side slopes of 2 to 1; harbor prism sufficient.

Otherwise as given under Scheme No. 2.

## ESTIMATES.

Chicago River—Lake Michigan to Robey Street, 6.02 miles . . . . \$ 8,528,910

Lake Michigan to Seventeenth Street, 3.37 miles.....	\$ 6,224,686
Real estate, 402,955 square feet.....	\$ 1,799,778
Improvements.....	846,900
Docking, 9,298 feet...	232,450
Excavation, 1,298,069 yards.....	314,968
Bridging, 3 railway, 15 roadway.....	2,851,000
Special, by-passes....	175,526
Special, railway tracks.....	4,350

The aggregate is divided in reaches as follows:

Lake Michigan to Rush Street, 3,400 feet.....	\$ 231,214
Rush Street to Lake Street, 3,870 feet.....	964,931
Lake Street to Van Buren Street, 3,284 feet.....	1,926,134
Van Buren Street to Twelfth Street, 3,594 feet.....	2,054,859
Twelfth Street to Seventeenth Street, 3,675 feet.....	1,037,548
Seventeenth Street to Robey Street, 2.65 miles.....	\$ 2,304,224
Real estate, 538,452 square feet.....	\$ 457,068
Improvements.....	195,000
Docking, 14,549 feet...	363,725
Excavation, 1,232,737 yards.....	300,568
Bridging, 1 railway, 7 roadway.....	892,000
Special by-passes....	94,263
Special railway tracks.....	1,600

The aggregate is divided in reaches as follows:

Seventeenth Street to Halsted Street, 5,150 feet.....	\$ 1,420,796
Halsted Street to Junction (South Fork), 5,906 feet.....	616,534
Junction to Robey Street, 2,940 feet.....	266,904

Extra for turning basin at Ashland Avenue, \$22,411,

Tunnel lowering not estimated.

South Fork, (F) and (H) as in Scheme No. 2, \$162,030.

Main Channel, (E) and (F) as in Scheme No. 2, \$179,485.

For (G) and (H) completing Controlling Works, \$50,000.

Calumet Northern Canal, (E) 122 feet on bottom.

Summit Junction to Pan Handle Railway, 6.80 miles.....	\$ 4,702,674
Right of way, 589.7 acres.....	577,718
Excavation, 12,503,026 cubic yards.....	3,123,756
Bridging, 8 roadway, 4 railway.....	1,089,200

Pan Handle Railway to S. D. line, 4.74 miles.....	\$ 4,555,852
Right of way, 449.13 acres.....	1,638,819
Excavation, 7,146,131 cubic yards.....	1,786,533
Bridging, 7 roadway, 5 railway.....	1,130,500

S. D. line to Calumet River, 4.03 miles.....	\$ 3,593,928
Right of way, 376 acres.....	1,145,183
Excavation, 4,666,088 cubic yards.....	1,166,509
Bridging, 6 roadway, 7 railway.....	1,382,300

Summit Junction to Calumet River, 15.57 miles.....	\$ 12,942,518
--	---------------

Calumet Northern Canal: (F) 67 feet on bottom. Summit Junction to Panhandle Railway, 6.80 miles..	\$ 3,690,998
Right of way, 496.5 acres.....	\$ 459,772
Excavation, 9,234,496 cubic yards.....	2,331,124
Bridging, 8 roadway, 4 railway.....	910,000

Panhandle Railway to Sanitary District line, 4.74 miles.....	\$ 3,542,963
Right of way, 370.5 acres.....	\$ 1,304,252
Excavation, 5,154,926 cubic yards.....	1,296,231
Bridging, 7 roadway, 5 railway.....	942,500

Sanitary District line to Calumet River, 4.03 miles.....	\$ 2,905,112
Right of way, 310.2 acres.....	\$ 911,386
Excavation, 3,284,896 cubic yards.....	821,226
Bridging, 6 roadway, 7 railway.....	1,072,500

Summit Junction to Calumet River, 13.57 miles.....	\$ 10,088,991
--	---------------

Calumet Harbor: 1.84 miles. Prism. Present river about 200 x 20 at smallest section.

ITEM.	(E)	(F)
Right of way, acres	No. 00	No. 00
Excavation, yards	00	00
Docking, feet.....	00	00
Bridging, railway	3 \$273,000	00
Bridging, roadway	00	00
Total.....	\$273,000	\$000,000

#### THE THIRTY-NINTH STREET CONDUIT.

The gross capital for the conduit flowing by gravity, with station for intercepting sewer service only, and the deduction therefrom on account of the special utility of and the change of plan due to the Calumet Northern Canal, are substantially as set forth in Scheme No. 2. The yearly charge for pumping 128,880 feet per minute through the conduit is increased on account of the greater lift due to the smaller declivity in the river between the Lake and South Fork Junction.

(G) Gross capital.....	\$2,660,185
Deductions.....	2,000,000
(E) Net capital.....	\$ 660,185
(H) Gross capital.....	7,439,933
Deductions.....	1,850,000
(F) Net capital.....	6,089,933

#### I. & M. CANAL PUMPING STATION.

Located as in Scheme No. 2; station, \$100,000; working capacity, 24,000; time, 240 days; coal, \$2.25 per ton.

The pumping head is figured for the elevation corresponding to 2.3 feet at Bridgeport, taking the declivity in canal at .10 foot per mile.

SUMMIT AND SAG.	(E)	(F)	(G)	(H)
Elevation in canal.....	1.50	1.50	.40	.40
Elevation, junction pts.....	1.44	1.87	2.02	2.78
Pumping head.....	2.94	3.37	2.42	3.18
Yearly charge.....	\$16,070.00	\$17,060.00	\$14,560.00	\$16,540.00
Gross capital.....	\$501,750.00	\$523,350.00	\$464,000.00	\$513,500.00

No estimate is made for deepening the canal above the pumping station.

#### THE NORTH SHORE ESTIMATE.

As in Schemes No. 1 and 2—	
Gross capital.....	\$4,410,582

#### CALUMET FLOOD DIVERSION.

As in Schemes No. 1 and 2—	
The estimate is.....	\$ 300,000

#### SUMMARY OF ESTIMATES.

ITEM.	(E.)	(F.)
Chicago River.....	\$ 8,528,910	\$ 8,528,910
South Fork.....		183,030
Main Channel.....	179,485	179,485
Calumet Northern Canal.....	12,942,518	10,088,991
Calumet Harbor.....	273,000	
Thirty-ninth Street Conduit, net.....	660,135	6,089,933
Illinois and Michigan Canal Station.....	501,750	523,250
Calumet Flood Diversion.....	300,000	300,000
North Shore and North Branch, net.....	4,410,582	4,410,582
Totals.....	\$ 27,796,880	\$ 30,236,181

## ALTERNATIVE.

The alternative does not differ from the foregoing except in substituting the Sag Valley Canal for the Calumet Northern Canal and omitting the deductions in the Thirty-ninth Street conduit estimate, which pertain to the northern route, shifting the Illinois and Michigan Canal pumping station from Summit to Sag and omitting enlargement of Main Channel at Summit.

The same propositions are involved as before, viz.: The Thirty-ninth Street conduit flowing by gravity and designated (G) and the conduit operated by a pumping station and designated (H).

## Capacity and Hydraulic Grade—Alternative.

The water supply in feet per minute may be summarized as follows:

	(G)	(H)
Depth in rock cut, Sag.....	25.48	24.72
Capacity below Junction.....	885,900	849,900
By Calcasieu River.....	390,000	390,000
By Thirty-ninth Street conduit.....	80,770	128,880
Sag Valley Canal.....	465,130	331,020

The hydraulic grade at characteristic localities is as follows:

Main Channel.	Dist.	Width Feet	(G)	(H)
S. F. Junction.....	5.37	200	-0.52	-0.52
Robey Street.....	6.02	*200	-0.60	-0.64
Summit.....	13.78	110	-1.53	-2.00
Willow Springs.....	19.28	220	-1.89	-2.27
Sag Junction.....	24.20	160	-2.02	-2.78
Lockport.....	34.05	160	-4.62	-5.38

\* 280 feet in estimate.

The distance from Sag Junction to Calumet Pier Light is (143,900 feet) 27.24 miles; in Canal, (118,870 feet) 21.57 miles; in harbor (29,970 feet) 5.67 miles. With the above data the elements of the channel are deduced as follows:

	(G)	(H)
Grade at bottom, Sag....	-27.50	-27.50
Grade at harbor.....	-25.48	-24.72
Width of Canal on bottom, side slopes 5 to 3, ft.	137	85
Harbor prism, feet.....	206x26	200x18.4

## SPECIFICATIONS—ALTERNATIVE.

Sag Valley Canal—Right of way (1,320 feet)  $\frac{1}{4}$  mile wide from Sag to Calumet River and from Wildwood by cut-off across foot of Lake Calumet; prism as hereinbefore given, viz.:

(G) 137 feet on bottom with side slopes of 5 to 3; harbor, 206 feet wide and 26 feet deep with sheet pile docks and 18 feet at dock line.

(H) 85 feet on bottom with side slopes of 5 to 3; harbor, 200 feet wide and 18.5 feet deep.

Unit prices and other conditions same as in Scheme No. 2.

## ESTIMATES—ALTERNATIVE.

Sag Valley Canal (G). 137 feet on bottom.	
Sag Junction to C., R. I. & P. Ry., 14.49 miles.....	\$ 10,965,298
Right of way, 2,281.8 acres.....	\$ 305,068
Excavation, 22,670,956 cubic yards.....	9,931,980
Bridging, 8 roadway, 2 railway.....	729,400

C., R. I. & P. Ry. to Calumet River, 7.08 miles.....	\$ 5,695,577
Right of way, 320 acres.....	\$ 640,000
Excavation, 7,670,836 cubic yards.....	3,451,877
Bridging, 7 roadway, 9 railway.....	1,603,700
Sag Junction to Calumet River, 21.57 miles.....	\$ 16,661,975

Sag Valley Canal. (H) 85 feet on bottom:

Sag Junction to C., R. I. & P. Ry., 14.49 miles.....	\$ 8,193,615
Right of way, 2,281.8 acres.....	\$ 305,068
Excavation, 16,126,550 cubic yards.....	7,256,947
Bridging, 8 roadway, 2 railway.....	631,600
C., R. I. & P. Ry. to Calumet River, 7.08 miles.....	4,476,631
Right of way, 320 acres.....	\$ 640,000
Excavation, 5,414,069 cubic yards.....	2,436,331
Bridging, 7 roadway, 9 railway.....	1,400,300
Sag Junction to Calumet River, 21.57 miles.....	\$ 12,670,246

Calumet harbor, 5.67 miles.

ITEM.	(G)		(H)	
Prism.	206x26 ft.		200x18.5 ft.	
Right of way, acres.....	20.66	\$220,290		
Excavation, yards.....	2,214,450	398,935	922,485	\$ 133,372
Docking, feet.....				
Bridging, railways.....	5	455,000	5	395,000
Bridging, roadways.....	5	385,000	3	204,000
Total.....		\$1,459,275		\$ 787,372

The other estimates are as hereinbefore given.

## SUMMARY OF ESTIMATES—ALTERNATIVE.

ITEM.	(G.)	(H.)
Chicago River.....	\$ 8,528,910	\$ 8,528,910
South Fork.....		162,080
Main Channel.....	50,000	50,000
Sag Valley Canal.....	16,661,975	12,670,946
Calumet Harbor.....	1,439,275	737,372
Thirty-ninth Street Conduit.....	2,640,135	7,439,953
Illinois and Michigan Canal Station.....	454,000	513,500
Calumet Flood Diversion.....	300,000	300,000
North Shore and North Branch, net.....	4,410,582	4,410,582
Totals.....	\$ 34,534,877	\$ 34,812,573

## THE TWO ROUTES.

The aggregate cost of the two propositions by each of the two routes is recapitulated as follows:

THIRTY-NINTH STREET CONDUIT.	Calumet Northern.	Sag Valley.
Operating by gravity.....	\$ 27,796,390	\$ 34,534,877
Operating by pumping.....	30,236,181	34,812,573

## MAPS AND DIAGRAMS.

All routes and profiles are shown in connection with Scheme No. 1. Special maps show proposed correction of the Chicago River.

## PART II.

## SUBSTITUTE FOR OFFICIAL PLAN.

This proposition contemplates condemning the dock rights in the heart of the city between Lake Street and Twelfth Street and producing over this reach a well developed and regular section 180 feet wide and 24 feet deep, and without obstructions of any kind, in which a higher velocity than the limit hereinbefore given will be permissible; and making a river 230 feet wide and with low velocity in the com-

mercial reaches from Lake Michigan to Lake Street and from Twelfth to Robey Street.

The cross-section in the restricted channel, or raceway, is 4,320 square feet and the capacity is computed at the limiting velocity and without deduction for the standard boat, at 453,600 cubic feet per minute.

## CAPACITY AND HYDRAULIC GRADE.

The distribution of water supply, the hydraulic grade and the elements of the branch channel to the Calumet are made up as in Part I of this Scheme, and are shown in the following tabulations. The proposition which involves the Thirty-ninth Street conduit flowing by gravity is herein designated (J), and operated by pumping (K).

The water supply in feet per minute may be summarized as follows:

	(J)	(K)
Depth in Rock Cut, W. S.	23.85	23.94
Capacity below junction	806,390	811,060
By Chicago River	453,600	453,600
By Thirty-ninth Street Conduit	80,770	128,880
Calumet Northern Canal	322,020	228,600

The Hydraulic Grade at characteristic localities is as follows:

Main Channel.	Dist.	Width.	(J)	(K)
S. F. Junction	5.37	180 & 280 ft.	-0.52	-0.52
Robey Street	6.02	280 ft.	-0.57	-0.59
Summit Junction	13.03	110 & 138 ft.	-1.61	-1.52
Willow Springs	19.23	202 ft.	-2.36	-2.28
Lockport	34.05	160 ft.	-6.25	-6.16

The distance from Summit Junction to Calumet pier light is (91,000 feet) 17.41 miles; in canal (83,200 feet) 15.57 miles; in harbor (9,700 feet) 1.84 miles. With the above data the elements of the channel are deduced as follows:

	(J)	(K)
Grade of bottom, Summit	25.39	25.39
Grade at harbor	23.77	23.86
Width of canal on bottom, side slopes 2 to 1	90.	55

Harbor prism (present prism sufficient).

#### SPECIFICATIONS.

Chicago River—To be 180 feet wide and 24 feet deep between masonry dock walls from Lake Street to Twelfth Street, and with bascule bridges mounted at dock line; to be 280 feet wide and 24 feet deep from Lake Street to Lake Michigan, with sheet pile docks and 18 feet at dock line, and with swing bridges; to be 280 feet wide and 22½ feet deep from Twelfth Street to Robey Street, with docks and bridges as for river from Lake Street to Lake Michigan.

South Fork, (K) and (M) as in Part I and in Scheme No. 2.

Main Channel, (J) and (K) to be enlarged below Summit Junction to conform to Main Channel as completed between Summit and Willow Springs. (K) and (M) to be widened from Robey Street to Summit to a width of 138 feet on bottom.

Calumet Northern Canal: Right of way (J) 800 feet in width; (K) 600 feet in width; prism as hereinbefore given, viz., (J) 90 feet on bottom with side slopes of 2 to 1; harbor prism

sufficient; (K) 55 feet on bottom with side slopes of 2 to 1, harbor prism sufficient.

Otherwise as given hereinbefore and under Scheme No. 2.

#### Estimates.

Chicago River, Lake Michigan to Robey Street, 6.02 miles.....\$ 11,074,042

Lake Michigan to Seventeenth Street, 3.37 miles.....	\$ 7,448,768
Real estate, 689,772 square feet.....	\$ 2,582,068
Improvements.....	860,760
Docking, 13,641 feet....	1,581,650
Excavation, 1,484,048 yards.....	355,898
Bridging, 16 highway, 3 railway.....	2,110,400
Special railway track..	8,000

The aggregate, Lake Michigan to Seventeenth Street, is divided in reaches as follows:

Lake Michigan to Rush Street, 3,400 feet.....	\$ 749,694
Rush Street to Lake Street, 3,870 feet.....	1,272,672
Lake Street to Van Buren Street, 3,284 feet.....	1,868,707
Van Buren Street to Twelfth Street, 3,594 feet.....	1,992,592
Twelfth Street to Seventeenth Street, 3,675 feet.....	1,548,101

Seventeenth Street to Robey Street, 2.65 miles.....	\$ 3,625,276
Real estate, 1,425,869 sq. ft.....	\$ 1,389,523
Improvements.....	558,300
Docking, 18,774 ft....	469,350
Excavation, 2,189,027 yds.....	502,664
Bridging, 7 highway, 3 railway.....	613,440
Special, protecting gas tanks.....	70,000
Special, removal of lumber.....	15,000
Special, railway track.	7,000

The aggregate, Seventeenth Street to Robey Street is divided in reaches as follows:

Seventeenth Street to Halsted Street, 5,150 feet.....	\$ 2,337,243
Halsted Street to Junction (South Fork) 5,900 feet.....	1,021,401
Junction to Robey Street, 2,940 feet..	266,632
Extra for turning basin at Ashland Avenue.....	32,722

Tunnel lowering is not estimated.

If new sheet pile docks are estimated for

those places where the dock line is changed in place of continuous gravity docks of masonry, between Lake Street and Twelfth Street, the above estimate will be reduced by \$1,240,636, but the section will be somewhat reduced and be less efficient and the estimate for the branch canal to the Calumet will be increased in some degree.

No value has been assigned to the dock rights between Lake Street and Twelfth Street, which is an essential element in the estimates for this proposition.

South Fork, (K) and (M) as in Part I... \$162,080  
Main Channel (J) enlargement below Summit and Controlling Works ... 179,485  
(K) Widening of channel, Robey Street to Summit, enlargement below Summit and Controlling Works..... 531,300  
(M) Controlling Works..... 50,000  
(M) Widening, Robey to Summit and Controlling Works..... 429,688

Calumet Northern Canal (J), 90 feet on bottom.

Summit Junction to Pan-handle  
Railway, 6.80 miles .....\$ 4,215,868  
Right of way, 589.7  
acres.....\$ 577,718  
Excavation, 10,606,000  
cubic yards ..... 2,651,250  
Bridging, 8 roadway, 4  
railway ..... 986,400

Pan-handle Railway to S. D. line,  
4.74 miles..... 4,161,444  
Right of way, 449.13  
acres.....\$ 1,638,819  
Excavation, 5,598,500  
cubic yards ..... 1,499,625  
Bridging, 7 roadway, 5  
Railway ..... 1,023,000

S. D. line to Calumet River, 4.03  
miles ..... 3,374,729  
Right of way, 376 acres.\$ 1,148,183  
Excavation, 3,853,383  
cubic yards..... 963,346  
Bridging, 6 roadway, 7  
railway..... 1,166,300  
Summit Junction to Calumet River,  
15.57 miles.....\$ 11,651,541

Calumet Northern Canal (K), 55 feet on bottom.

Summit Junction to Pan-handle  
Railway, 6.80 miles.....\$ 3,441,222  
Right of way, 486.5  
acres.....\$ 459,772  
Excavation, 8,549,800  
cubic yards..... 2,137,450  
Bridging, 8 roadway, 4  
railway..... 844,000

Pan-handle Railway to S. D. line,  
4.74 miles.....\$ 3,368,377  
Right of way, 370.5  
acres.....\$ 1,304,252  
Excavation, 4,744,500  
cubic yards..... 1,136,125  
Bridging, 7 roadway, 5  
railway ..... 875,000

S. D. line to Calumet River, 4.03  
miles..... 2,652,235  
Right of way, 310.3  
acres.....\$ 911,386  
Excavation, 2,975,396  
cubic yards ..... 743,849  
Bridging, 6 roadway, 7  
railway ..... 997,000

Summit Junction to Calumet River,  
15.57 miles.....\$ 9,458,834

Calumet Harbor: 1.84 miles. Prism. Present river about 200x20 at smallest section.

ITEM.	(J)		(K)	
	No.		No.	
Right of way, acres	00	00	00	00
Excavation, yards	00	00	00	00
Docking, feet	00	00	00	00
Bridging, railway	3	\$243,000	00	00
Bridging, roadway	00	00	00	00
Total		\$243,000		\$000,000

Thirty-ninth Street conduit, as given in Part 1, viz.:

(L).....\$2,660,135  
(J)..... 680,135  
(M)..... 7,439,933  
(K)..... 6,069,933

## I. &amp; M. CANAL PUMPING STATION.

Estimates as in Part 1, and in Scheme No. 2.

SUMMIT AND SAG.	Elevation in Canal	Elevation Junction Points	Pumping Head	Yearly Charge	Gross Capital
(J) .....	1.50	1.61	3.11	\$16,379 00	\$509,250 00
(K) .....	1.50	1.52	3.02	16,120 00	508,008 00
(L) .....	0.40	2.38	2.78	15,784 00	494,000 00
(M) .....	0.40	2.57	2.97	16,000 00	500,000 00

Cost of station (\$100,000) included in gross capital.

## THE NORTH SHORE ESTIMATE.

As in Schemes o. 1 and No. 2—

Gross capital..... \$4,410,582

## CALUMET FLOOD DIVERSION.

As in Schemes No. 1 and No. 2—

The estimate is..... \$300,000

## SUMMARY OF ESTIMATES.

ITEM.	(J)	(K)
Chicago River.....	\$11,074,042	\$11,074,042
South Fork.....		163,030
Main Channel.....	179,486	521,200
Calumet Northern Canal.....	11,651,541	9,458,534
Calumet Harbor.....	245,000	
Thirty-ninth Street conduit, net.....	660,135	6,089,933
I. & M. Canal station.....	509,360	508,000
Calumet flood diversion.....	300,000	300,000
North Shore and North Branch, net.....	4,410,582	4,410,582
Totals .....	\$29,028,035	\$32,519,621

## ALTERNATIVE.

The alternative substitutes the Sag Valley Canal for the Calumet Northern Canal and differs only in the changes pertaining to the location. The proposition which involves the Thirty-ninth Street conduit flowing by gravity is herein designated (L); and operated by pumping (M).

## CAPACITY AND HYDRAULIC GRADE.

The water supply in feet per minute may be summarized as follows:

	(L)	(M)
Depth in rock out, Sag.....	25.12	24.93
Capacity, below junct'n.....	868,790	859,980
By Chicago River.....	453,600	453,600
By Thirty-ninth St. Conduit.....	30,770	128,880
Calumet-Sag Canal.....	384,429	277,500

The hydraulic grade at characteristic localities is as follows:

Main Channel	Dist.	Width Feet	(L)	(M)
S. F. Junction..	5.37	180 & 280	-0.52	-0.52
Robery Street...	6.02	280	-0.57	-0.59
Summit.....	13.78	110 & 188	-1.72	-1.63
Willow Springs..	19.28	203	-1.95	-1.95
Sag Junction....	24.20	160	-2.38	-2.57
Lockport.....	34.05	160	-4.98	-5.17

The distance from Sag Junction to Calumet Pier light is (143,800 feet), 27.24 miles; in canal (113,870 feet) 21.57 miles; in harbor (29,930 feet) 5.67 miles.

With the above data the elements of the channels are deduced as follows:



	(L.)	(M.)
Grade at bottom, Sag.....	—27.50	—27.50
Grade at harbor.....	—25.12	—24.98
Width of canal on bottom, side of slopes 5 to 3.....	110	70
Harbor prism.....	200x22	200x16.5

## SPECIFICATIONS.

Sag Valley Canal: Right of way (L) 1,820 feet in width; (M) 660 feet in width from Sag to Calumet River and by Wildwood cut-off; prism as hereinbefore given, viz:

[L]. 110 feet on bottom, with side slopes of 5 to 3; harbor, 200x22 feet.

[M]. 70 feet on bottom, with side slopes of 5 to 3; harbor, 200x16.5 feet.

Unit prices and other conditions same as in Scheme No. 2.

## ESTIMATES—ALTERNATIVE.

Sag Valley Canal: [L.] 110 feet on bottom.	
Sag Junction to C., R. I.	
& P. Ry., 14.49 miles.	\$ 9,644,505
Right of way, 2,861.8	
acres.....	\$ 805,063
Excavation, 19,182,415	
cubic yards.....	8,610,087
Bridging, 8 roadway,	
2 railways.....	729,400

C., R. I. & P. Ry. to Calumet River, 7.08 miles.....	\$ 5,214,645
Right of way, 820 acres.....	\$ 640,000
Excavation, 6,602,100 cubic yards.....	2,970,945
Bridging, 7 roadway, 9 railways.....	1,803,700

Sag Junction to Calumet River, 21.57 miles.....	14,859,150
--	------------

Sag Valley Canal: (M) 70 feet on bottom.

Sag Junction to C., R. I. & P. Ry., 14.49 miles.....	\$ 7,399,985
Right of way, 1,140.9 acres.....	\$ 152,534
Excavation, 14,747,670 cubic yards.....	6,636,451
Bridging, 8 roadway, 2 railway.....	611,000

C., R. I. & P. Ry. to Calumet River, 7.08 miles.....	\$ 3,879,869
Right of way, 160 acres.....	\$ 320,000
Excavation, 4,494,710 cubic yards.....	2,227,369
Bridging, 7 roadway, 9 railway.....	1,382,500

Sag Junction to Calumet River, 21.57 miles.....	\$ 11,279,854
Calumet Harbor: 5.67 miles.	

ITEM.	L)		(M)	
PRISM.	200 x 22 ft.		200 x 16.5 ft.	
Right of way, acres.....	1,278,005	\$229,565	698,000	\$105,300
Excavation, cubic yards.....	5	455,000	2	150,000
Docking, feet.....	3	231,000	2	130,000
Bridging, railway.....				
Bridging, roadway.....				
Total.....		915 65		385,300

The other estimates are as hereinbefore given.

#### SUMMARY OF ESTIMATES (ALTERNATIVE).

ITEM.	(L)	(M)
Chicago River.....	\$11,074,042	\$11,074,042
South Fork.....		182,080
Main Channel.....	50,000	429,688
Sag Valley Canal.....	14,869,150	11,279,854
Calumet Harbor.....	918,568	885,360
Thirty-ninth Street Conduit.....	2,660,135	7,439,933
Illinois and Michigan Canal Station.....	494,600	500,000
Calumet Flood Diver- sion.....	300,000	300,000
North Shore and North Branch, net.....	4,410,583	4,410,583
Total.....	\$34,764,074	\$35,981,424

#### THE TWO ROUTES.

The aggregate cost of the two propositions by each of the two routes is recapitulated as follows:

THIRTY-NINTH STREET CONDUIT.	Calumet Northern.	Sag Valley.
Operated by gravity....	\$29,028,085	\$34,764,074
Operating by pumping.	32,519,621	35,981,424

#### MAPS AND DIAGRAMS.

All routes and profiles are shown in connection with scheme No. 1. Special maps show proposed correction of the Chicago River.

#### SUPPLEMENT—SCHEME NO. 3.

##### *The Official Plan.*

The plan herein denominated "official" has not yet, in all respects, been the subject of official action.

The 200-foot plan for the Chicago River has been adopted and certain bridges have been built and others let which, it is conceded, will require by-passes to develop the full capacity of the improvement for carrying water without undue injury to navigation at critical points. This project has been therefore modified in this respect, and the plan would be improved by widening where boats sweep the bends.

The official plan for the Lawrence Avenue conduit and the North Branch improvement is the subject of ordinances and agreements between the city and the Sanitary District. The gross capital in this work (work done not included) is \$3,034,023.

The effect of the Thirty-ninth Street conduit agreement between the city and the Sanitary

District is not fully apparent. It has been the purpose of the Sanitary District to introduce 120,000 feet of lake water by way of the conduit and the South Fork, but no final arrangement has been made between the city and the Sanitary District as to the extra volume above that mentioned in the ordinances and agreements. The volume as stated by letter from the Commissioner of Public Works to the Chairman of this Commission is 128,800 cubic feet per minute, 8,800 feet being the estimated sewage in addition to the lake water. The gross capital in this work (work done not included) is \$7,439,933.

The Sag Valley Canal has been suggested tentatively as the source of any additional water. The estimate for a canal sufficient to develop the full capacity of the Main Channel below the point of junction, including Calumet Harbor, is \$13,407,618.

The summary is as follows:

Chicago River and South Fork.....	\$ 8,690,940
Thirty-ninth Street conduit.....	7,439,933
Completing controlling works.....	50,000
Sag Valley canal and Calumet harbor.....	13,407,618
Calumet flood diversion.....	300,000
Pumping station I. & M. canal.....	512,500
Lawrence Avenue conduit and North Branch.....	3,034,023
North Shore canal .....	3,081,700
Total .....	\$36,517,779

#### OBLIGATIONS.

In addition to the obligations scheduled in Part I, Scheme No. 1, mention was made of those which pertained to existing agreements between the city and the Sanitary District.

The value of the Lawrence Avenue conduit and North Branch is estimated, gross capital, \$3,034,023.

The lowest estimate which can be assigned to the agreement respecting the Thirty-ninth Street conduit, operated by gravity and pumping station for sewer outfall only, is \$2,660,135.

A literal interpretation of the agreement will probably raise this amount to not less than \$3,000,000.

These amounts do not include work done to January 1, 1901.

The total may be taken at \$6,000,000, which is a legitimate deduction from the grand totals in the several exhibits, in determining the liability for new work.

#### WATER SUPPLY BY TUNNELS.

##### *Addenda—Scheme No. 1.*

At the suggestion of the chairman, an ap-

proximate estimate is made of the cost of tunnels and a pumping station as a substitute for the inlet at Sixteenth Street, with a capacity of 625,000 feet per minute.

Tunnels 20 feet in diameter are assumed to best satisfy the construction requirements and their average length is taken at 4,000 feet. The number is taken at five and the pumping head (with some allowance for loss in velocity, head, etc.) is taken at three feet.

A single station with 12 units of the propellor type, each unit with a working capacity of 62,500 feet per minute is assumed as sufficient for perpetual service. The cost of such units, as given by the builders (80,000 on three feet lift), for the North Shore station, is taken at \$50,000 each.

It is assumed that the entire plant can be housed under one roof. Some special cost will attach to intakes, bays, screens, gates, etc., and these together with the station building are taken at \$400,000.

The tunnels are taken at \$125 per lineal foot.

The tunnels are to be spaced 50 feet between centers, starting with the center of Sixteenth Street. The right of way required will be 200 feet south of Sixteenth Street. All improvements are to be removed, but after the tunnels are built, the real estate may be sold, subject to the easement. It is assumed that the salvage will be 75% of the value of the realty, which will cover rental or interest during construction and depreciation. It is assumed that the value of the improvements will clear the land.

The same basin is required as for the inlet.

The pumping station with all appurtenances complete is estimated at \$1,000,000; and coal at \$2.25 per ton. The yearly charge computed by rule set forth in Supplement to Part I, Scheme No. 1, is \$304,948.

#### ESTIMATE.

Real estate, one-fourth value.....	\$ 487,063
Improvements, full value .....	1,203,810
Tunnels, 20,000 feet.....	2,500,000
Basin and lake entrance .....	295,200
Pumping station and appurtenances .....	1,000,000
<b>Total for construction.....</b>	<b>\$ 5,486,073</b>
Operation and maintenance, capitalized at 4%.....	7,623,700
<b>Gross capital.....</b>	<b>\$13,109,773</b>

#### COMMUNICATION FROM DELAWARE LACKAWANNA AND WESTERN RAILROAD COMPANY.

The Clerk presented a communication from the Delaware, Lackawanna and Western Railroad Company, requesting the Board to extend the work of blasting and dredging in the rock sections of the South Fork of the South Branch of the Chicago River to within ten feet of the dock line, so as to permit the landing of boats at said company's dock.

Mr. Smyth, seconded by Mr. Cloldt, moved that the communication be placed on file.

The motion prevailed unanimously and it was so ordered.

#### COMMUNICATION FROM THE ATTORNEY FOR BRIDGET MCGUIRL.

The Clerk presented a communication from John J. Coburn, attorney for Bridget McGuirl, in the matter of the case of Bridget McGuirl vs. The Sanitary District of Chicago, being a suit for damages to property located at Western Avenue and adjacent to the right of way of the Sanitary District. Mr. Coburn, on behalf of his client, making a proposition for the settlement of said case by deeding the land in question to the Sanitary District and dismissing the suit for damages on payment, by the Sanitary District, of the sum of \$15,000.00.

Mr. Jones, seconded by Mr. Legner, moved that the communication be referred to the Committee on Finance.

The motion prevailed unanimously and it was so ordered.

#### ADJOURNMENT.

On motion of Mr. Smyth, seconded by Mr. Cloldt, the Board adjourned.

*A. R. Porter,*  
CLERK

June 19,]

—7298—

[1901

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

JUNE 26, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Thirty-fourth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Wednesday, June 26, 1901, at 2 o'clock P. M.

The President, Mr. Jones, took the chair, and the meeting being called to order, there were then

*Present*—Messrs. Baker, Carter, Cloldt, Jones, Legner, Smyth and Wenter—Seven members.

Messrs. Braden and Webb arriving subsequently.

**VOUCHERS.**

The Clerk presented the following vouchers:

**PAY ROLLS.**

Engineering Department (Chief Engineer's roll, June, 1901).....	\$2,633 33	
Engineering Department (Div. of Construction roll, June, 1901).....	3,493 75	
Engineering Department (Special Service roll, June, 1901).....	313 80	
		\$ 6,440 88
Clerical Department (Clerk's roll, June, 1901).....		938 88
Law Department (Attorney's roll, June, 1901).....		1,976 66
Treasury Department (Treasurer's roll, June, 1901).....		375 00

June 26,]

—7300—

|1901

General Account (General roll, June, 1901).....	\$ 205 00	
General Account, (Special roll, June, 1901).....	310 00	
General Account, (Trustees' roll, June, 1901).....	2,333 83	
		<u>2,848 83</u>
Police Department (Marshal's roll, June, 1901).....		1,733 28
Maintenance Account (Controlling Works, June, 1901).....	\$ 550 00	
Maintenance Account (Bridgeport Pumping Works, June, 1901).....	1,593 91	
		<u>2,148 91</u>
Total.....	\$	<u>16,451 89</u>

## CONSTRUCTION ACCOUNT.

Lydon and Drews Company (Canal Street Bridge to June 10, 1901)....	\$ 2,537 50	
Lydon and Drews Company (Main Street Bridge to June 15, 1901)....	2,698 95	
Lydon and Drews Company (Pan Handle Temporary Bridge, Sec. O) ..	500 00	
Page & Shnable (Ashland Avenue Bridge to June 15, 1901).....	4,368 78	
Page & Shnable (removing railway track).....	26 90	
Norton & Co. (water power development, Controlling Works).....	66 23	
A. R. Porter, Clerk (water power development, Controlling Works)...	259 25	
		<u>10,452 61</u>

## ENGINEERING DEPARTMENT.

Hans Isak (gauge reading).....	\$ 10 00	
Cameron, Amberg & Co. (stationery).....	161 89	
		<u>171 89</u>

## CLERICAL DEPARTMENT.

The Typewriter Inspection Company (repairing typewriting machine) ..	10 50	
American Water Company (water).....	18 50	
		<u>24 00</u>

## LAW DEPARTMENT.

Maud Shaffner (service as stenographer, special work).....		94 30
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## POLICE DEPARTMENT.

Mrs. Bridget Lambert (laundry, police station, Lockport).....	\$ 9 40	
Joliet Union Steam Laundry (laundry, police station, Joliet).....	6 04	
		<u>15 04</u>

## GENERAL ACCOUNT.

A. R. Porter, Clerk (expense).....	\$ 1,085 83	
Robert E. Hills (fittings, Steamer Joliet) ..	13 73	
The Chicago Chronicle Company (advertising).....	41 60	
		<u>1,141 16</u>

## DOCK AND LAND IMPROVEMENT AND RENTAL ACCOUNT.

M. H. McGovern & Co. (grading road bed, Sec. K).....	\$ 314 60	
M. H. McGovern & Co. (grading road bed, Sec. K) ..	392 25	
		<u>707 85</u>

Grand total. .... \$ 29,058 24

Mr. Baker, seconded by Mr. Legner, moved that the vouchers, as read and shown above be approved and ordered paid.

The roll being called, it was so ordered.

Yeas—Messrs. Baker, Braden, Carter, Cloldt, Jones Legner, Smyth (*except as to pay-roll voucher for the Bridgeport Pumping Works for June, 1901, amounting to \$1,593.91, on which Mr. Smyth voted nay*). Webb and Wenter—Nine.

Nays—None (*except as above stated*).

STATEMENT IN REFERENCE TO THE MINORITY REPORT OF THE FINANCE COMMITTEE ON PURCHASE OF MAXWELL PROPERTY.

Mr. Carter presented a statement in writing, being in reference to the minority report of the Finance Committee on the purchase of certain property from James and Henry B. Maxwell, submitted by Mr. Wenter at the meeting held June 19, 1901, and requested unanimous consent to have the same printed in the Proceedings of the Board as of said date.

Unanimous consent being granted, the said statement was ordered printed in the Proceedings of the Board as of June 19, 1901.

MONTHLY REPORT OF THE CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of May, 1901, which, by unanimous con-

sent, was ordered printed and placed on file.

The following is the report :

CHICAGO, May 28, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith submit the report of the Clerical Department for the month of May, 1901.

The total expenditure of the District for the month of May, 1901, was \$124,755.21, of which amount the sum of \$88,988.49 was paid in regular warrants, and the sum of \$35,771.72 by the Treasurer of the District, for which no warrant was required. Of the amount paid by the Treasurer, the sum of \$33,545.59 was for 1900 tax warrants redeemed, and \$2,226.18 for interest on same.

The total amount expended on account of, and charged to, the Clerical Department was \$999.33, of which amount the sum of \$983.33 was for salaries and the sum of \$16 00 for general office expenses.

The total amount expended for account of, and charged to, the General Account was \$8,784.02, divided as follows:

Rent of offices, May, 1901.....	\$ 458 33
Printing.....	238 92
Advertising.....	180 96
Salaries.....	2,894 83
Telephone line.....	231 40
General expenses.....	3 552 39
Telephone and toll service.....	1,177 19
Total.....	\$ 8,784 02

Of the total Tax Levy Warrants heretofore issued, the following amounts were still outstanding June 1, 1901:

Against the Tax Levy of 1896.....	\$ 10,963 39
Against the Tax Levy of 1899.....	2,258 64
Against the Tax Levy of 1900.....	24,389 01
Total.....	\$ 37,611 04

The following is a tabulated statement of total expenditures for the month of April, 1901:

Account.	Regular Warrants.	Paid by Treasurer.	Total for Month.
Engineering Department.....	\$ 10,922 21	.....	\$ 10,922 21
Construction .....	47,888 89	.....	47,888 89
Clerical Department.....	999 88	.....	999 88
Law Department.....	3,828 50	.....	3,828 50
Land Account.....	6,955 87	.....	6,955 87
Treasury Department.....	875 00	.....	875 00
General Account.....	8,784 02	.....	8,784 02
Police Department.....	1,794 12	.....	1,794 12
Maintenance Account.....	4,521 82	.....	4,521 82
Dock and Land Improvement & Rental Acct.	2,074 91	.....	2,074 91
Will County Taxes 1900.....	2,569 82	.....	2,569 82
1900 Tax Warrants redeemed.....	.....	\$38,545 59	38,545 59
Interest on Tax Warrants redeemed.....	.....	2,226 18	2,226 18
Totals .....	\$ 88,988 49	\$35,771 72	\$ 124,755 21

Respectfully submitted,

(Signed)

A. R. PORTER, *Clerk.*

REPORT SUBMITTING FORM OF LEASE  
FOR DOCKAGE LANDS TO THE ILLINOIS  
STONE COMPANY.

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee as follows:

CHICAGO, June 26, 1901.

To the Honorable, the Board of Trustees of  
the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Finance, to whom was referred the communication of the Illinois Stone Company containing a proposition for a lease of dockage lands belonging to the District, herewith presents a form of lease to be executed by the District with the above mentioned party.

Said lease is for the term of one year, at an annual rental of two (\$2.00) dollars per lineal foot of water front, and is in conformity with the form ordered by the Board of Trustees for use in cases as above.

Your Committee, therefore, recommends that the President and Clerk be authorized and directed to execute said lease on behalf of the District to the party as above

set forth, the said party having executed the same and complied with the terms and conditions thereof.

Respectfully submitted,

(Signed)

Z. R. CARTER,

*Chairman.*

WM. H. BAKER,

THOMAS A. SMYTH,

WM. LEGNER,

FRANK X. CLOIDT,

FRANK WENTER.

*Committee on Finance.*

(One enclosure).

On motion of Mr. Carter, seconded by Mr. Cloidt, the report was adopted and the recommendations contained therein concurred in.

*Yeas* — Messrs. Baker, Braden, Carter, Cloidt, Jones, Legner, Smyth, Webb and Wenter—Nine.

*Nays*—None.

The following is the form of lease with the Illinois Stone Company:



**THIS INDENTURE**, Made this 1st day of April, 1901, between The Sanitary District of Chicago, party of the first part, and the Illinois Stone Company, a corporation, organized and existing under the laws of the State of Illinois, party of the second part.

**WITNESSETH**, That said party of the first part for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, its successors and assigns, has demised and leased to the said party of the second part all those premises situate, lying and being in the County of Cook and State of Illinois, known and described as follows, to-wit:

A strip of land in the northwest quarter of Section 21, Township 37 North, Range 11 East of Third Principal Meridian, described as follows:

Beginning at a point on the southerly bank of the Main Drainage Channel, opposite Station 1697+16.9 on the center line of said Main Drainage Channel, running thence southeasterly on a line at right angles with said center line of said Main Drainage Channel, running thence southeasterly on a line at right angles with said center line of said Main Channel, to the southerly line of the right of way of the Sanitary District of Chicago, running thence northeasterly along said southerly line of the right of way, for a distance of 100 feet; running thence northwesterly to a point on the southerly bank of the Main Drainage Channel opposite Station 1096+16.9 on the center line of said Main Drainage Channel, running thence southwesterly along said southerly bank of said Main Drainage Channel to the point of beginning. To be used for the purpose of shipping stone.

To have and to hold the above described premises unto the party of the second part, its successors and assigns, from the 1st day of April, in the year of our Lord One Thousand Nine Hundred and One, for and during and until the 31st day of March, in the year of our Lord One Thousand Nine Hundred and Two.

And the said party of the second part in consideration of the leasing of the premises aforesaid, by the said party of the first part to the said party of the second part, does covenant and agree with the said party of the first part, its successors and assigns, to pay to the said party of the first part as rent for the said demised premises, at the office of said first party, in the City of Chicago, the sum of two (\$2.00) dollars per lineal or running foot of water front per annum, payable in equal monthly installments in advance.

It is hereby expressly agreed by and between the parties hereto that the said party of the

second part does hereby waive any and all claims which may hereafter be caused by any change or alteration in the level of the Illinois and Michigan Canal.

It is further expressly covenanted and agreed that the said party of the second part shall have the right to excavate or grade the land herein leased to five feet above Chicago datum.

C It is expressly covenanted and agreed by the said party of the second part, its successors and assigns, that it will use said above described premises for docking and shipping purposes only, and that it will not use said premises, or suffer them to be used, for the sale of wines, ales, liquors, or any other intoxicating beverage whatever, or for the purpose of gambling in any manner whatsoever.

It is further expressly covenanted and agreed, however, by and between the parties aforesaid, that the said party of the first part, its successors or assigns, reserves to itself the right at any time, at its election, to declare said lease terminated, and either with or without process of law, and using such force as may be necessary in so doing to re-enter said demised premises, and again re-possess and enjoy said premises as in their first and former state. Said party of the first part hereby covenants and agrees in case it does terminate this lease as above provided, and for no cause given by the said party of the second part, to pay to said party of the second part such sum of money as shall be appraised as damages caused by such termination of this lease, said damages to be appraised by a board of three (3) arbitrators, one to be appointed by the party of the first part, and one by the party of the second part, and said two so appointed to choose a third one. The award of said board of arbitrators to be final and binding upon both parties to this lease.

It is further covenanted and agreed by the said party of the second part that it will pay, or cause to be paid, all water rates and all taxes and assessments that may be laid, charged or assessed on said premises, pending the existence of this lease, or if at any time after any tax, assessment or water rate shall have become due or payable, the party of the second part, or its legal representatives shall neglect to pay such water rates, tax or assessment, it may be lawful for the party of the first part to pay the same at any time thereafter, and the amount of any and all such payments so made by the party of the first part shall be deemed and taken and are hereby declared to be so much additional and further rent for the above demised premises due from and payable by the party of the second part; and may be collected in the same manner by distress or otherwise, as is hereinafter pro-

vided for the collection of other rents to grow due thereon.

And it is expressly understood and agreed by the party of the second part hereto, or its successors and assigns, that the whole amount of rent reserved and agreed to be paid for said above described premises, and each and every installment thereof, shall be and is hereby declared to be a valid and first lien upon any and all buildings and improvements on said premises, or that may at any time be erected, placed or put on said premises by said party of the second part, its successors or assigns, and upon its or their interests in this lease and the premises hereby demised; and that whenever and as often as any installment of rent or any other amount above declared to be deemed and taken as rent shall become due and remain due and unpaid for one day after the same become due and payable, said party of the first part, its successors, agents, attorneys, or assigns, may sell at public auction, to the highest bidder for cash, after having first given ten days' notice of the time and place of such sale in some newspaper in Cook County, all the buildings and improvements on said premises, and all the right, title and interest acquired by the said party of the second part under the lease to the premises herein described, and as the attorney of the said party of the second part, hereby irrevocably constituted, may make to the purchaser or purchasers thereof a suitable and proper transfer, bill of sale, or deed of the same, and out of the proceeds arising from the said sale, after first paying all costs and expenses of said sale, including commission and attorneys fees, retain to itself the whole amount due on said lease up to the date of said sale, rendering the surplus, if any, to said party of the second part, its successors, attorneys or agents, which sale shall be a perpetual bar to and against all rights and equities of said party of the second part, its successors and assigns, in and to the property sold.

And the party of the second part further covenants with the party of the first part that it will keep said demised premises in a clean and wholesome condition, in accordance with the ordinance and regulations of Cook County and the direction of the health officers thereof, and that at the expiration of the time in this lease mentioned, it will yield up said premises to the party of the first part in as good condition as when the same were entered upon by the party of the second part, loss by fire or inevitable accident or ordinary wear excepted.

It is further agreed by the party of the second part that neither it nor its legal representatives will underlet said premises, or any part thereof, or assign this lease without the

written assent of said party of the first part first had and obtained thereto, nor use, or suffer them to be used, for any other purpose than that above mentioned.

It is expressly understood and agreed by and between the parties aforesaid that if the rent above reserved, or any part thereof, shall be behind or unpaid on the day of payment whereon it ought to be paid, as aforesaid, or if any default shall be made in any of the covenants herein contained to be kept by the party of the second part, its successors or assigns, it shall or may be lawful for the party of the first part, or its successors, agents, attorneys or assigns, at its election, to declare said term ended, and into the said demised premises, or any part thereof, either with or without process of law, to re-enter, and the party of the second part, or any other person or persons, occupying, in or upon the same, to expel, remove and put out, using such force as may be necessary in so doing, and the said premises again to re-possess and enjoy, as in their first and former estate, and to distrain for any rent that may be due thereon upon any property belonging to the party of the second part, whether the same be exempt from execution and distress by law or not; and the party of the second part in that case hereby waives all legal rights which it now has or may have, to hold or retain any such property under any exemption laws now in force in this state, or in any other way, meaning and intending hereby to give the party of the first part, its successors, officers, agents, attorneys or assigns, a valid and first lien upon any and all goods, chattels, or other property belonging to the party of the second part as security for the payment of said rent, in manner aforesaid, anything hereinbefore contained to the contrary notwithstanding. And if at any time said terms shall be ended at such election of said party of the first part, its successors, officers, agents, attorneys or assigns, as aforesaid, or in any other way, the party of the second part does hereby covenant and agree to surrender and deliver up said above described premises and property peaceably, to the said party of the first part, its successors, officers, agents, attorneys or assigns, immediately upon the determination of said term as aforesaid; and if it shall remain in the possession of the same one day after notice of such default, or after the termination of this lease, in any of the ways above named, it shall be deemed guilty of a forcible detainer of the premises under the statute, and shall be subject to all the conditions and provisions above named, and to eviction and removal, forcibly or otherwise, with or without process of law, as above stated.

And the party of the second part hereby

also agrees that in case any additional taxes are levied or assessed upon said property by reason of the construction of any improvements or appurtenances thereon by said second party, that said second party shall pay or cause to be paid all of said taxes which may be so levied or assessed.

And it is further agreed and understood by the said party of the second part that neither the right given in this lease to said party of the first part to collect the rent that may be due under the terms of this lease, by sale or any proceedings under the same shall in any way affect the right of said party of the first part to declare this lease void and the term hereby created ended, as above provided, upon default made by said party of the second part.

And the said party of the second part hereby waives its right to any notice from said party of the first part of its election to declare this lease at an end, under any of the provisions, or any demand for the payment of rent, or the possession of premises leased herein; but the simple fact of the non-payment of the rent reserved shall constitute a forcible detainer as aforesaid.

It is further understood and agreed that this lease shall be subject to the easement of the Sanitary District of Chicago for all purposes within its corporate powers not destructive or unnecessarily injurious to the rights and privileges of the party of the second part.

The said party of the second part further agrees not to remove any buildings or improvements from said premises without the written assent of the said party of the first part, and that the said second party shall pay and discharge all costs and attorneys' fees and expenses that shall arise from enforcing the covenants of this indenture by the party of the first part.

It is further understood and agreed that all the conditions and covenants contained in this lease shall be binding upon the successors and assigns of the parties to these presents, respectively.

It is further agreed by the party of the second part that it will not build on the right of way of the Sanitary District of Chicago, leased herein, a construction of any kind whatsoever

without the written assent of the said party of the first part, first had and obtained thereto.

SANITARY DISTRICT OF CHICAGO.

By ALEX. J. JONES,

President.

Attest:

A. R. PORTER,

Clerk.

ILLINOIS STONE COMPANY.

By LUTHER LOOMIS,

President.

Attest:

JAS. A. HOGAN,

Clerk.

[SEAL]

(The lease being accompanied by a plat, showing the location of the lands referred to.)

COMMUNICATION FROM ISHAM RANDOLPH  
IN REFERENCE TO THE THIRTY-NINTH  
STREET CONDUIT.

The President submitted the following communication from Chief Engineer Isham Randolph:

CHICAGO, June 26, 1901.

Hon. Alexander J. Jones, President:

DEAR SIR—I visited the Thirty-ninth Street Conduit yesterday and found that a short section of same at Butler Street was being constructed in open cut to admit of placing air lock and new shield. The brick work of this short section will be completed by the end of the present week. The shield, the air lock and compressors are reported to be ready for erection.

The engineer in charge told me that it would take all of the month of July to place the shield, the compressors and the air lock, and that until these are in place ready for operation no more brick can be

laid. This work is in preparation for completing the conduit from Butler Street east to a junction with the work done by the first contractors, which ended near Dearborn Street.

On the stretch between Vincennes Avenue, where the former contractors' work ends, and the lake shore there are no visible signs of preparation for resumption of operations. This work was suspended in April, 1900.

Yours truly,

ISHAM RANDOLPH,  
*Chief Engineer.*

Mr. Cloidt, seconded by Mr. Baker, moved that the President of the Board appoint a special committee of three to consider the question referred to in the communication of the Chief Engineer; and also the matter of the machinery for the pumping station in connection therewith, and make such representations to the city authorities as will secure progress on said work, and report back to the Board.

The motion of Mr. Cloidt prevailed unanimously and it was so ordered.

The President thereupon appointed Messrs. Cloidt, Baker and Webb as such special committee of three.

RESOLUTION IN REFERENCE TO DREDGING AND TAKING MEASUREMENTS OF THE CURRENT IN THE CHICAGO RIVER.

Under the head of new business Mr. Carter, seconded by Mr. Smyth, moved the adoption of the following resolution:

WHEREAS, The Sanitary Board did on the 11th day of April, 1900, unanimously approve plans for increasing the cross section of the Chicago River, in order that a suf-

ficient amount of water for the requirements of the Sanitary District might be obtained through the river without creating a current exceeding one and one-quarter miles per hour; and

WHEREAS, One of the provisions of that plan was the dredging of the river to a depth of twenty-six feet; and

WHEREAS, On the 19th day of June, 1901, this Board, acting in accordance with the above named provision, ordered all stretches of the river containing the smaller cross sections and lying between Lake Street and Robey Street dredged to a depth of twenty-six feet; now, therefore, be it

*Resolved*, That the Chief Engineer, after having selected a stretch of the river containing the smallest cross section, shall have the current over that stretch carefully measured before proceeding to dredge the same and, after having completed the work of dredging the stretch selected, shall again have the current carefully measured and report the results, as shown by the measurements, to this Board.

The motion made by Mr. Carter to adopt the resolution prevailed unanimously, and it was so ordered.

ADJOURNMENT TO SPECIAL TIME.

Mr. Cloidt, seconded by Mr. Legner, moved that when the Board adjourns it adjourns to meet Monday, July 1, 1901, at 2 o'clock P. M.

The motion prevailed unanimously, and it was so ordered.

The Board thereupon adjourned.

*A. R. Porter*  
CLERK

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

JULY 1, 1901

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**ADJOURNED MEETING.**

The Adjourned Session of the Five Hundred and Thirty-fourth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Monday July 1, 1901, at 2 o'clock P. M., pursuant to motion.

The President, Mr. Jones, took the chair and the meeting being called to order, there were then

*Present*—Messrs. Baker, Carter, Cloldt, Jones, Legner, Webb and Wenter—Seven members.

*Absent*—Messrs. Braden and Smyth—Two members.

**MINUTES.**

On motion of Mr. Legner, seconded by Mr.

Baker, the minutes of the adjourned regular meeting held June 19, 1901, and of the regular meeting held June 26, 1901, were approved as printed.

**MESSAGE FROM PRESIDENT JONES SUBMITTING FORM OF AGREEMENT BETWEEN THE SANITARY DISTRICT AND THE ILLINOIS CANAL COMMISSIONERS IN REFERENCE TO THE BRIDGEPORT PUMPING WORKS.**

The Clerk presented the following message from President Jones:

CHICAGO, July 1, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

**GENTLEMEN**—Under the recent decision of the Supreme Court, in the case of Canal Commissioners vs. The Sanitary District, it is clearly held not to be the duty or within the legal authority of the Sanitary District to maintain the water at the summit

level in the Illinois and Michigan Canal by the operation of the Bridgeport Pumping Works in the City of Chicago.

It is the desire of the Canal Commissioners to assume the duty and expense of operating the Bridgeport Pumping Works, to the end that a navigable water level may be maintained in the summit level of the Illinois and Michigan Canal; and I recommend, in order that the interests of navigation may be fully subserved, that the President and Clerk be authorized to execute the enclosed articles of agreement between the Sanitary District of Chicago and the Canal Commissioners, the same being an assignment of the lease now existing between the Sanitary District and the City of Chicago, under which your Honorable Body has been operating the Bridgeport Pumps and maintaining the summit level in the Illinois and Michigan Canal. Proper provision has been made for the protection of all the rights and interests of the Sanitary District, and the form of agreement herewith submitted specifically recognizes the force and conclusions of the Supreme Court decision, under which the Sanitary District is absolved from the burden of maintaining navigation on the summit level of the Canal.

Respectfully submitted,

ALEX. J. JONES.

*President:*

The following is the form of agreement referred to in the message of the President:

ARTICLES OF AGREEMENT, Made and entered into by the Sanitary District of Chicago, a municipal corporation, parties of the first part, and the Canal Commissioners, officers of the State of Illinois, for and in behalf of said State, parties of the second part;

*Witnesseth*, That whereas, by a certain contract entered into by the party of the first part with the parties of the second part, on the 21st day of December, A. D. 1899, by the terms of which said contract it was, among other things, provided, that the said party of the first part should cease to be discharged into the channel of the Illinois and Michigan Canal a quantity of water equal to 35,000 cubic feet per minute for the first four (4) months after the said contract was made, and thereafter to supply sufficient water to said Illinois and Michigan Canal to keep therein a navigable depth of water equal to 6 feet thereof for

navigation, in what is known and designated as the summit level of said Canal; and

WHEREAS, In order to carry out said contract, the said party of the first part, on the 21st day of July, A. D. 1900, entered into a certain lease with the City of Chicago, by the terms of which said lease the said City of Chicago leased to the party of the first part the property known and described as Block one hundred and three (103), Canalport Subdivision of the northeast quarter (N. E.  $\frac{1}{4}$ ) and southeast quarter (S. E.  $\frac{1}{4}$ ) and east half (E.  $\frac{1}{2}$ ) of the southwest quarter (S. W.  $\frac{1}{4}$ ) of Section thirty (30), Township thirty-nine (39) North, Range fourteen (14), together with all buildings, machinery and fixtures therein, said premises being commonly known as the Bridgeport Pumping Works, the rental to be paid to the said City of Chicago being One (1) Dollar per year, payable on the 1st day of July of each year, and every year during the continuance of said lease, said lease to be terminated at the election of either party upon ninety (90) days' notice to the other party; and

WHEREAS, Such proceedings were thereafter had in the Supreme Court of the State of Illinois, as that it was held, determined and decided by said Court that the said party of the first part was not and is not bound to comply with the terms of said contract so entered into on the 21st day of December, A. D. 1899, with the party of the second part hereto.

Now, therefore, It being the desire and intention and purpose of the said parties of the second part hereto to continue at their own proper expense, and the expense of the State of Illinois, the said Pumping Station and Works at Bridgeport, Illinois, so leased by the party of the first part from the said City of Chicago; in consideration of the premises, therefore, the said Sanitary District of Chicago, party of the first part, does by these presents, assign, transfer and set over to the said Canal Commissioners all the right, title, claim and interest that it, the said party of the first part acquired by, through or under the said lease, so entered into between the said party of the first part and the said City of Chicago; and in consideration of said assignment and transfer as hereinbefore stated by the said party of the first part to the said party of the second part, it, the said party of the second part hereby agrees to receive and take charge of, manage and control the said Pumping Station and property in said lease described, free from all expense of any name, kind, nature or character, to the said Sanitary District, party of the first part hereto, and the said Canal Commissioners further stipulate and agree to save and keep harmless the said Sanitary District of Chicago, party of the first part

hereto, from all actions at law or in equity, by any person claiming to own the said property described in the said lease from the said City of Chicago to the said Sanitary District, party of the first part hereto, or any part thereof, and to pay all costs and damages, if any, which may be awarded against the party of the first part by reason of any such action, so brought against the said party of the first part hereto, and to fully protect the said party of the first part against all loss or damage of any name, kind or nature whatsoever, growing out of this lease and this contract.

*In witness whereof*, The Sanitary District of Chicago has caused this contract to be executed by its President, attested by the corporate seal of the said Sanitary District of Chicago, by its Clerk, and in like manner, the Canal Commissioners have caused this contract to be executed on their behalf by their President and Secretary, under the seal of the said Canal Commissioners. Dated at Chicago, this 1st day of July, A. D. 1901.

THE SANITARY DISTRICT OF CHICAGO,

By

.....  
President.

.....  
Clerk.

THE CANAL COMMISSIONERS.

By

.....  
President.

.....  
Secretary.

Approved:

JAMES TODD,  
Attorney.

Approved:

H. M. SNAPP.

Mr. Carter, seconded by Mr. Baker, moved that the message and accompanying agreement be received and the recommendations contained in the message of the President concurred in.

The roll being called, the motion was adopted by the following vote:

*Yeas*—Messrs. Baker, Carter, Cloldt, Jones, Legner, Webb and Wenter—Seven.

*Nays*—None.

CHIEF ENGINEER DIRECTED TO TAKE AN INVENTORY OF THE PROPERTY AT THE BRIDGEPORT PUMPING WORKS.

In connection with the message of the President Mr. Legner, seconded by Mr. Cloldt, moved that the Chief Engineer be directed to take an inventory of the property at the Bridgeport Pumping Works, and that a receipt be taken therefor from the Illinois Canal Commissioners upon the execution of the articles of agreement between the District and the said Canal Commissioners.

The motion prevailed unanimously, and it was so ordered.

#### CLERK'S REPORT ON EMPLOYEES.

The Clerk presented the following report, showing the number of persons employed by the Sanitary District for the month ending June 30, 1901:

July 1, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employees in each department for the month ending June 30, 1901, as the same has been reported to me:

Engineering Department.....	46
Clerical Department.....	4
Law Department.....	9
Treasury Department.....	1
Police Department.....	18
General.....	3
Maintenance.....	27

Total employees..... 108

Respectfully submitted,

A. R. PORTER,  
Clerk.

The above report was, by unanimous consent, ordered printed and placed on file.

REPORT SUBMITTING ANNUAL TAX LEVY ORDINANCE OF THE SANITARY DISTRICT OF CHICAGO FOR THE FISCAL YEAR OF 1901.

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee as follows:

CHICAGO, July 1, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance would respectfully report to your Honorable Body that they have had under consideration the subject of the annual tax levy for the year 1901, in connection with its use as a resource for the corporate purposes of the District; and the Committee advise your Honorable Body that they are of the opinion that the same should now be made, and a proper certification presented to the County Clerk under the law; and your Committee accordingly presents herewith a draft of ordinance for the annual tax levy for the fiscal year of 1901, and recommends its passage.

Respectfully submitted,

(Signed)

Z. R. CARTER,

*Chairman.*

WM. H. BAKER,

ALEX J. JONES.

THOMAS J. WEBB,

WM. LEGNER,

FRANK X. CLOIDT,

FRANK WENTER,

*Committee on Finance.*

The following is the ordinance:

**TAX LEVY ORDINANCE OF THE SANITARY DISTRICT OF CHICAGO FOR THE FISCAL YEAR OF 1901.**

*Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

SECTION 1. That there be and is hereby levied upon all the taxable property within the Sanitary District of Chicago for the fiscal year 1901, the following sums of money, for the purposes hereinafter stated:

For the payment of principal of maturing bonds, seven hundred and eighty thousand (\$780,000) dollars.

For the payment of accruing interest on bonds, six hundred and forty-two thousand (\$642,000) dollars.

For all other corporate and municipal purposes of said Sanitary District of Chi-

cago, five hundred and seventy-eight thousand (\$578,000) dollars, making a total of two million (\$2,000,000) dollars.

SECTION 2. That the Clerk of this Board is hereby directed to file with the County Clerk of the County of Cook and State of Illinois, a certified copy of this ordinance; and the said County Clerk of the said County of Cook, in the State of Illinois aforesaid, is hereby directed to cause the aforesaid sums of money to be extended upon and against the taxable property within the said Sanitary District of Chicago, as by law provided.

SECTION 3. This ordinance to be in force from and after its passage.

Mr. Carter, seconded by Mr. Baker, moved that the report be adopted and the recommendations contained therein concurred in.

The roll being called, the motion was carried by the following vote:

*Yeas*—Messrs. Baker, Carter, Cloidt, Jones, Legner, Webb and Wenter—Seven.

*Nays*—None.

**REPORT ON BIDS FOR THE ERECTION OF SUB AND SUPERSTRUCTURES OF BRIDGE ACROSS CHICAGO RIVER AT RANDOLPH STREET.**

Mr. Wenter, member of the Committee on Engineering, presented a report in reference to the bids for supplying and erecting the sub and superstructures of bridge across the Chicago River at Randolph Street, referred to the Committee on Engineering at the meeting of the Board, held June 12, 1901, (page 7216 of the Proceedings).

The following is the report:

CHICAGO, July 1st, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering, to which was referred June 12, 1901, (page 7216 of the proceedings) the matter of bids for supplying and erecting the substructure and superstructure for the bridge across the Chicago River at Randolph Street, herewith makes report to your Honorable Body that it has carefully examined and considered each of the several lists of bids submitted upon the work



mentioned as heretofore, advertised and tabulated, and finds that the lowest bidder upon each of said structures of the work as advertised is as follows, respectively: For supplying and erecting the superstructure for the bridge across the Chicago River at Randolph Street is American Bridge Company of New York; for supplying and erecting substructure for the bridge across the Chicago River at Randolph Street is Jackson & Corbett Company of Chicago, Ill.

Your Committee reports that each of said lowest bidders is, in its opinion, responsible for the execution of said work, and therefore recommends that the contracts respectively, for the execution of said work as hereinbefore mentioned in the manner described in the advertisement, plans and specifications, heretofore prepared by the Engineering Department, be let to the firm or corporation designated in the order hereinafter named and at the prices hereinafter stated, to-wit: the contract for supplying and erecting the superstructure for the bridge across the Chicago River at Randolph Street to the American Bridge Company of New York at the following prices;

Lump sum for superstructure and substructure metal as specified, one hundred and seven thousand dollars (\$107,000.00); for furnishing pit lining, per lb., four (4) cents; for extra medium soft steel, per lb., four (4) cents; for extra iron casting, per lb., three (3) cents; for extra cast steel track plates, per lb., ten (10) cents; for extra steel and machinery castings, per lb., ten (10) cents; for extra phosphor bronze, per lb., forty (40) cents; for extra counter weight black casting, per lb., one and one-half (1½) cent; for extra yellow pine or oak, per 1,000 ft. B. M., fifty dollars (\$50.00).

The contract for supplying and erecting the substructure for the bridge across the Chicago river at Randolph street to Jackson and Corbett Company, Chicago at the following prices:

Excavation, price, per cubic yard, forty-nine (49) cents; sheet piling and bracing, per thousand feet B. M., thirty-six dollars and seventy-five cents (\$36.75); oak timber in wales, price per thousand feet B. M., forty-one dollars and fifty cents (\$41.50); pine foundation piles delivered, price per

lineal foot, nineteen (19) cents; oak protection piles delivered, price per lineal foot twenty-two (22) cents; piles driven in foundation, price per lineal foot twelve (12) cents; piles driven in protection, price per lineal foot eight (8) cents; Portland cement concrete, price per cubic yard five dollars and thirty cents (\$5.30); cement facing, price per cubic yard, twenty-two dollars (\$22.00); steel pit linings, price per lb., seventy-five one hundredths cent (75/100); substructure metal, price per lb., one-half (½) cent; removal present superstructure, lump sum twenty-two hundred dollars (\$2,200.00); removal substructure, lump sum twenty-six hundred dollars (\$2,600.00); sewers, etc., lump sum thirteen hundred dollars (\$1,300.00); dredging channel and removing matter, price per cubic yard sixty-five (65) cents; total \$81,628.84.

Your committee further reports that Jackson and Corbett Company voluntarily offered to increase their bond from fifteen thousand dollars (\$15,000.00) to forty thousand dollars (\$40,000.00) to cover the work mentioned in said contract, and your committee recommends that the same be accepted, said offer being advantageous to the district.

Your committee further recommends that the President and Clerk of the District be authorized and directed to execute on behalf of the District said contracts respectively, in the form to be prepared according to said advertisement, plan and specification, and as soon as the same shall have been executed by the persons or corporations respectively above mentioned for the work awarded to said persons or corporations respectively above mentioned, and bonds shall have been furnished and approved by the Committee on Finance for the faithful performance of the work specified in the penal sum set forth as follows; by the American Bridge Company, a bond in the sum of thirty-five thousand dollars (\$35,000.00) on said contract awarded to said American Bridge Company, by Jackson and Corbett Company (said Company having voluntarily offered to increase said bond from fifteen thousand dollars (\$15,000.00) to forty thousand dollars (\$40,000.00)), a bond in the sum of forty thousand dollars (\$40,000.00) on the contract awarded to said Jackson and Corbett Company, each of said bonds to be executed in

proper form with the Surety Company, acceptable to and approved by the Committee on Finance of the Sanitary District of Chicago.

Respectfully submitted,

(Signed) FRANK WENTER,  
THOMAS J. WEBB,  
Z. R. CARTER,  
WM. H. BAKER,  
FRANK X. CLOIDT,  
WM. LEGNER,  
Alex. J. JONES,  
*Committee on Engineering.*

On motion Mr. Wenter, seconded by Mr. Carter, the report was adopted and the recommendations contained therein concurred in:

*Yeas* — Messrs. Baker, Carter, Cloidt, Jones, Legner, Webb and Wenter—Seven.

*Nays*—None.

ORDER FOR PAYMENT OF PRINCIPAL AND INTEREST ON BONDS MATURING JULY 1, 1901.

Under the head of new business Mr. Carter presented the following

ORDER:

*Ordered*, That the Clerk of the Sanitary District of Chicago be, and he hereby is, instructed to draw a warrant, payable to the order of the Treasurer of the District for the sum of four hundred thirty-seven thousand nine hundred and seventy-five (\$437,975) dollars to be used by said Treasurer in the payment of the principal and interest of bonds maturing on the first day of July, 1901, as follows:

Third issue, 150 bonds (seventh payment).....	\$150,000
Tenth issue, 50 bonds (first payment).....	50,000
Total bonds .....	\$200,000
Second issue, six months interest on \$1,950,000 at five per cent.....	\$48,750
Third issue, six months interest on \$2,100,000 at five per cent.....	52,500
Fourth issue, six months interest on \$2,800,000 at four and one-half per cent .....	68,000

Fifth issue, six months interest on \$600,000 at four and one-half per cent....	18,500
Sixth issue, six months interest on \$640,000 at four and one-half per cent....	14,400
Seventh issue, six months interest on \$200,000 at three and one-half per cent.....	3,500
Eighth issue, six months interest on \$190,000 at three and one-half per cent....	3,325
Ninth issue, six months interest on \$950,000 at four per cent.....	19,000
Tenth issue, six months interest on \$1,000,000 at four per cent.....	20,000

Total interest..... \$237,975

Grand Total..... \$437,975

On motion of Mr. Carter, seconded by Mr. Baker, the order as presented was adopted.

*Yeas* — Messrs. Baker, Carter, Cloidt, Jones, Legner, Webb and Wenter—Seven.

*Nays*—None.

COMMUNICATION FROM C. W. GREENFIELD.

The Clerk presented a communication from C. W. Greenfield, attorney for the owners of the steamer "Bulgaria" and barge "Algeria," with accompanying bill of \$1,081.86 for damages to said steamer and barge, alleged to have been sustained by reason of the excessive current in the Chicago River.

Mr. Webb, seconded by Mr. Cloidt, moved that the communication be placed on file.

The motion prevailed unanimously, and it was so ordered.

ADJOURNMENT.

On motion of Mr. Baker, seconded by Mr. Cloidt, the Board adjourned.

*A. R. Porter,*  
CLERK

**PROCEEDINGS**  
—OF THE—  
**BOARD OF TRUSTEES**  
—OF THE—  
**SANITARY DISTRICT OF CHICAGO.**

JULY 10, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Thirty-fifth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago, was held in the Rooms of the Board, Security Building, Wednesday, July 10, 1901, at 2 o'clock, P. M.

The President, Mr. Jones, took the chair,

and the meeting being called to order, there were then

*Present*—Messrs. Baker, Braden, Carter, Cloidt, Jones, Legner and Smyth—Seven members.

*Absent*—Messrs. Webb and Wenter—Two members.

**MINUTES.**

On motion of Mr. Cloidt, seconded by Mr. Legner, the minutes of the regular meeting held July 1, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

Lydon & Drews Company (Chicago River improvement, July 1, 1901) ..\$ 19,626 95  
Lydon & Drews Company (Chicago River improvement, July 1, 1901) .. 1,597 43

Lydon & Drews Company (Main Street Bridge, July 1, 1901).....	\$ 2,753 80	
Lydon & Drews Company (Canal Street Bridge, July 1, 1901).....	4,590 25	
Lydon & Drews Company (Pan Handle Temporary Bridge, Sec. O)....	500 00	
Page & Shnable (Ashland Avenue Bridge, July 1, 1901).....	929 80	
L. P. Friesdtedt Company (Chicago River improvement).....	85 00	
Atchison, Topeka and Santa Fe R. R. Co. (Pan Handle Bridge, Sec. O)	83 45	
Illinois Central Railroad Company (Pan Handle Temporary and Permanent Bridge, Section O).....	84 21	
Isham Randolph (Controlling Works boom).....	45 10	
	<hr/>	\$ 30,295 99

## ENGINEERING DEPARTMENT.

Robert W. Hunt & Co. (inspecting material, Eight-track Bridge).....	\$ 1,651 26	
Henry Gebhardt (repairing office furniture).....	22 80	
Samuel L. Hanks (ice).....	27 00	
W. T. Keating (expense).....	7 88	
Gunthorp-Warren Printing Company (printing specifications).....	87 00	
R. Seelig (drafting supplies).....	9 45	
H. Isak (gauge reading).....	10 00	
Rand-McNally & Co. (Map of Chicago).....	7 50	
Keuffel & Esser Company (blue prints).....	34 00	
G. M. Wisner (expense).....	32 17	
W. T. Keating (expense).....	29 13	
The American Water Company (water).....	3 38	
Knickerbocker Ice Company (ice).....	3 15	
The Consumers Company (water).....	1 88	
Eugene Dietzgen Company (blue prints).....	60 33	
Pearson Bros. (blue prints).....	7 39	
Geo. B. Carpenter & Co. (paints, oils, etc.).....	23 70	
W. H. Salisbury (rubber gloves and boots).....	6 07	
Henry Stuckart (hardware).....	2 50	
A. P. Little (typewriter paper).....	1 75	
H. Channon Company (iron bars).....	1 80	
J. M. Olcott Company (mounting map).....	3 60	
John F. Decker Company (photo supplies).....	20 25	
Imperial Carpet Cleaning Company (cleaning carpets, Chief Engineer's office).....	13 32	
S. J. Stebbins Company (hardware).....	20 64	
Ralph Modjeski (services, Eight-track Bridge, May, 1901).....	87 17	
J. W. Landis (lumber).....	2 57	
W. G. Derbyshire (bridge inspection, June, 1901).....	100 00	
Isham Randolph (expense).....	231 00	
	<hr/>	\$ 2,507 69

## CLERICAL DEPARTMENT.

Henry Gebhardt (carpenter work).....	\$ 3 25	
Cameron, Amberg & Co. (stationery).....	52 31	
H. Schultz & Co. (paper boxes).....	2 10	
	<hr/>	\$ 57 66

## LAW DEPARTMENT.

Mayer & Miller (printing).....	\$ 8 50	
Chicago Title and Trust Company (abstract).....	9 80	
John S. Runnells (salary, June, 1901).....	416 66	
American Water Company (water).....	10 12	
Edwards & Hancock (stationery).....	11 75	

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Edward Thompson Company (law book).....	6 00	
Edward R. Nadelhoffer (typewriting).....	15 00	
Imperial Carpet Cleaning Company (cleaning carpets, Attorney's office).....	4 05	
Ervin T. Geist, Recorder, Will County (fees).....	110 25	
	<u>\$</u>	592 18

## POLICE DEPARTMENT.

Thes. F. Ryan (hardware and lumber).....	\$ 73 08	
Beuttenmuller & Spelter (ammunition).....	2 55	
Thos. F. Ryan (coal, Lockport Station).....	15 68	
	<u>\$</u>	91 31

## GENERAL ACCOUNT.

W. T. Keating (telephone line).....	\$ 4 70	
Lakeside Stables (livery).....	8 00	
Imperial Carpet Cleaning Company (cleaning carpets, Board room)....	24 71	
Miller Decorating Company (painting Steamer Juliet).....	200 00	
The Chicago Real Estate Board (services, valuing District land near Western Avenue).....	244 50	
Youghiogheny and Lehigh Coal Company (coal, Steamer Juliet).....	84 00	
Isham Randolph (telephone line).....	131 00	
William Saville (repairs, Steamer Juliet).....	82 32	
Chicago Printing and Embossing Company (printing).....	1 75	
Samuel L. Hanks (ice).....	15 00	
Geo. B. Carpenter & Co. (sundries, Steamer Juliet).....	14 58	
H. Lewis & Co. (oils, Steamer Juliet).....	14 00	
Thomas F. Ryan (coal, Steamer Juliet).....	4 50	
Security Building Receivership (rent offices, June, 1901).....	458 33	
The American Contractor (advertising).....	19 20	
	<u>\$</u>	1,256 54

## MAINTENANCE ACCOUNT.

Francis Beidler & Co. (lumber, Robey Street warehouse).....	\$ 65 53	
Acorn Brass Works (mantels, Bridgeport Pumping Works).....	2 10	
Isham Randolph (Bridgeport Pumping Works).....	93 00	
Sullivan Oil Company (oil, Bridgeport Pumping Works).....	16 31	
Crew-Levick Company (oil, Bridgeport Pumping Works).....	40 64	
A. R. Porter (Bridgeport Pumping Works).....	78 84	
Standard Oil Company (oil, Controlling Works).....	4 38	
W. J. Freckelton (coal, Bridgeport Pumping Works).....	2,051 41	
T. E. Belton (boiler compound, Bridgeport Pumping Works).....	21 00	
Union Stoneware Company (water coolers, Bridgeport Pumping Works).....	6 00	
Franklin, MacVeagh & Co. (rolled oats, Bridgeport Pumping Works)..	2 45	
Ike Euphrat (repairs, Bridgeport Pumping Works).....	3 70	
James B. Clow & Sons (repairs, Bridgeport Pumping Works).....	2 67	
Crosby Steam Gauge Valve Company (repairs, Bridgeport Pumping Works).....	8 00	
Chicago Engineers' Supply Company (supplies, Bridgeport Pumping Works).....	6 50	
	<u>\$</u>	2,402 53

## DOCK AND LAND IMPROVEMENT AND RENTAL ACCOUNT.

Dolese & Shepard Company (spur track, Section K).....	\$ 431 17	
Dolese & Shepard Company (spur track, Section K).....	166 23	
M. H. McGovern & Co. (spur track, Section K).....	146 20	
	<u>\$</u>	743 60
Grand total.....	<u>\$</u>	87,947 45

Mr. Carter, seconded by Mr. Baker, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden (except as to maintenance account vouchers for Bridgeport Pumping Works in favor of Acorn Brass Works, \$2.10; Isham Randolph, \$93.00; Sullivan Oil Company, \$16.31; Crew Levick Com-

pany, \$40.64; A. R. Porter, \$78.84; Standard Oil Company, \$4.38; W. J. Freckelton, \$2,051.41; T. E. Belton, \$21.00; Union Stoneware Company, \$6.00; Franklin MacVeagh & Co., \$2.45; Ike Euphrat, \$3.70; James B. Clow & Sons, \$2.67; Crosby Steam Gauge Valve Company, \$8.00, and Chicago Engineer's Supply Company, \$8.50, on which Mr. Braden was excused from voting), Carter, Cloldt, Joner, Legner and Smith—Seven.

*Nays*—None (except as above noted).

#### MONTHLY REPORT OF THE TREASURY DEPARTMENT.

The Clerk presented the report of the Treasury Department for the month of June, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

##### SANITARY DISTRICT OF CHICAGO.

##### Treasurer's Report for June, 1901.

###### Receipts.

Balance on hand at date of last report.....	\$ 1,469,639 22
From County Treasurer, Sanitary District Tax Account.....	100,000 00
From A. R. Porter, Clerk, Police Department.....	100 00
From A. R. Porter, Clerk, docks, land improvement, etc.....	845 84
From A. R. Porter, Clerk, bridge construction, Main Channel.....	6 40
From A. R. Porter, Clerk, Chicago River Improvement.....	15 60
From A. R. Porter, Clerk, Engineering Department.....	17 00
From Home Savings Bank, Interest Account.....	328 72
From Equitable Trust Company, Interest Account.....	410 99
From Chicago National Bank, Interest Account.....	1,600 95

Total cash received for month..... 103,325 50

\$ 1,572,964 72

###### Disbursements.

Clerical Department.....	\$ 946 08
Treasury Department.....	375 00
Engineering Department.....	9,015 58
Construction Account....	37,289 22
Law Department.....	3,229 69
Land Account.....	47,920 50
General Account .....	6,314 41
Police Department.....	1,888 06
Maintenance Account.....	5,681 70
Dock and Land Improvement and Rental Account.....	1,641 42
Tax Warrants Paid—Levy 1900.....	16,690 69
Interest Paid on Tax Warrants.....	1,099 85

Total cash disbursed.....\$ 182,031 40

Balance this date in banks, as per schedule endorsed hereon..... 1,440,933 32

\$ 1,572,964 72

###### Schedule.

Chicago National Bank.....	\$ 964,755 68
Equitable Trust Company.....	250,000 00
Home Savings Bank .....	200,000 00
National Bank of Illinois.....	25,938 78
Illinois Trust and Savings Bank.....	239 01

Total.....\$ 1,440,933 32

CHICAGO, July 8, 1901.

F. M. BLOUNT, Treasurer.

By S. P. BLOUNT, Assistant Treasurer.

**COMMUNICATION FROM THE WEST CHICAGO PARK COMMISSIONERS.**

The President submitted a communication received from the West Chicago Park Commissioners requesting the Board to appoint a special committee to confer with said commissioners and representatives of the Pennsylvania Railroad Lines, the Chicago Terminal Transfer and the Junction Railroads in regard to plans for the construction of a subway under the proposed elevation of the railroad tracks of said companies at Southwest Boulevard.

By unanimous consent, the President was directed to appoint a special committee of three to confer with said Park Commissioners on the matter in question.

The President thereupon appointed Messrs. Carter, Smyth and Baker as such special committee of three.

**RESOLUTION IN REFERENCE TO THE VIOLATION OF LAW BY THE AMERICAN TIN PLATE COMPANY OF JOLIET, ILL., WHICH PROHIBITS THE DEPOSITING OF SOLIDS IN NAVIGABLE STREAMS.**

Mr. Legner, Chairman of the Judiciary Committee, presented the following resolution:

**WHEREAS**, The American Tin Plate Company, a corporation having its works at Joliet, in Will County, adjacent to the east bank of the Desplaines River, near the mouth of Hickory Creek, in the Township of Joliet, have been and are engaged in filling up the channel and bed of said river by depositing therein cinders, slag and other material; and

**WHEREAS**, Such matter so deposited extends out into the bed and channel of said river to a distance of forty (40) feet from the east bank of said river at the point above mentioned; and

**WHEREAS**, The effect of depositing such cinders, slag and material in the bed of said stream has had the effect of causing said waters to depart from the original channel of said river and overflow lands to the west of the westerly bank of said river and cause substantially a new channel to be cut through private property on the westerly side of said river, and said cinders, slag and material so being an ob-

struction to the water flowing in said stream, is a great public nuisance, and ought to be abated by the proper authorities; and

**WHEREAS**, By Sections 10, 13 and 16 of an act of Congress, approved March 3d, 1899, it is made unlawful to deposit any material of any kind in any place on the bank of any navigable water, or in any navigable water, or any tributary of any navigable water, where the same may be liable to be washed into such water and might impede navigation, and that any person guilty of so depositing such material in any navigable water, or any tributary to any navigable water, shall be punished by a fine not exceeding twenty-five hundred dollars nor less than five hundred dollars, or by imprisonment in the case of a natural person, of not less than thirty days nor more than one year, or both; and

**WHEREAS**, Also by the provisions of Section 221, Chapter 38, being the Criminal Code of Illinois, the deposit of material in a navigable stream or other water is also made an offense punishable by fine and imprisonment; therefore, be it

*Resolved*, That the attention of the District Attorney of the United States for the Northern District of Illinois, and the Attorney General of the State of Illinois be directed to the nuisance created and being created by the said American Tin Plate Company, with a request that such action be taken by the said District Attorney of the United States for the Northern District of Illinois, and by the said Attorney General as will cause said nuisance to be abated, and such other and proper steps in the premises as they may deem necessary to prevent said stream from being filled up and its flowing capacity injured and navigation interrupted by reason of the deposit of such material in said river; and that the Engineering and Law Departments of this Board be directed to collect and secure all the evidence in connection with said violation of the law, and to supply the same to the proper authorities.

Mr. Legner, seconded by Mr. Braden, moved the adoption of the resolution as presented.

The motion prevailed unanimously and it was so ordered.

**APPROVAL OF SURETY BONDS ON CONTRACTS FOR THE ERECTION OF SUB AND SUPERSTRUCTURES OF BRIDGE CROSSING THE CHICAGO RIVER AT RANDOLPH STREET.**

Mr. Carter, Chairman of the Committee on Finance, presented a report from the committee as follows:

CHICAGO, July 10, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance begs leave to report that it has examined the bond given by Jackson and Corbett Company of Chicago for the construction of substructure of lift bridge across the Chicago River at Randolph Street, said bond being in the sum of forty thousand (\$40,000.00) dollars, with the Fidelity and Deposit Company of Maryland as surety. Also the bond given by the American Bridge Company of New York for the construction of superstructure of same, said bond being in the sum of fifteen thousand (\$15,000.00) dollars, with the City Trust Safe Deposit and Surety Company of Philadelphia, as surety.

The Committee finds said bonds to be executed in proper form, and hereby approves the sureties thereon, and recommends that the same be approved by your Honorable Body.

Respectfully submitted,

(Signed) Z. R. CARTER,  
Chairman.  
WM. H. BAKER,  
FRANK X. CLOIDT,  
WM. LEGNER,  
ALEX. J. JONES,  
J. C. BRADEN,  
THOMAS A. SMYTH,  
Committee on Finance.

The report being accompanied by said contracts and bonds in duplicate.

Mr. Carter, seconded by Mr. Baker, moved that the report be adopted and the recommendations contained therein concurred in.

The roll being called the report was adopted by the following vote:

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Jones, Legner and Smyth—Seven.

*Nays*—None.

The following are the contracts:

**SUBSTRUCTURE FOR RANDOLPH STREET BRIDGE.**

**SANITARY DISTRICT OF CHICAGO.**

Contract and Specifications for the Substructure of a Highway Rolling Lift Bridge of the Scherzer type, crossing the South Branch of the Chicago River, in the City of Chicago, to be built for the Sanitary District of Chicago.

*This Agreement*, Made and entered into this first day of July, A. D. 1901, by and between the Sanitary District of Chicago, of the first part, and Jackson and Corbett Company, a corporation organized and existing under and by virtue of the laws of the State of Illinois, of the second part.

A—

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the Highway Rolling Lift Bridge for the Sanitary District of Chicago, crossing the South Branch of the Chicago River at Randolph Street in the City of Chicago.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer or other designated representative of the Sanitary District of Chicago, and his properly authorized agents, and by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer or other designated representative shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein



expressed; and the Chief Engineer or other designated representative of the Sanitary District in charge of said work shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Wherever the words "Sanitary District" are used in this contract, they shall be understood to mean the Sanitary District of Chicago, as represented by the Board of Trustees of the Sanitary District or their duly authorized and accredited agents.

Whenever the word "Engineer" is used herein, it shall be understood to mean either the Chief Engineer of the Sanitary District of Chicago, or the duly designated representative of the Sanitary District.

Wherever the word "Contractor" is used herein, it shall be understood to mean the person or persons or co-partnership or corporation entering into the contract as party of the second part.

The following ordinance, passed by the Board of Trustees of the Sanitary District of Chicago, June 23, 1897, is hereby made a part of this contract, and the party of the second part agrees to comply with its provisions, and in case of violation thereof to be subject to the penalties therein authorized to be imposed:

*"Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

"SECTION 1.—That in the preparation of all future specifications for contracts for the construction of the Main Channel and auxiliary works, the Engineering Department shall provide that such contracts shall be executed in conformance with the law constituting eight (8) hours a day a legal day's work in all contracts under the Sanitary District of Chicago, and that, in the employment of labor, contractors shall be required and specifically agree to give preference to Union labor.

"SECTION 2.—That all contracts hereafter executed for the works of the Sanitary District of Chicago shall contain provisions constituting eight (8) hours a legal day's work, and forbidding the employment of any employe or employes for a longer period than eight (8) hours in any twenty-four (24) hours, and that said contract shall vest specific authority in the Police Department of the Sanitary District of Chicago to exercise supervision for the enforcement of this provision, and shall provide that the Board of Trustees of the Sanitary District of Chicago shall be empowered, in all cases of violation of said eight (8) hour law, to deduct and retain from any money accruing to said contractors a sum as liquidated damages at the rate of five dollars (\$5.00) per hour for each employe who shall be required to work in excess of eight (8) hours per day by any contractor on said Canal."

## SUBSTRUCTURE.

### GENERAL.

#### *Work Included.*

1. The work included under the contract for the substructure consists in removing from the site all of the superstructure, the abutments, piers, foundation piles and fenders of the old bridge, and such a part of the present dock and approach as is necessary for the completion of the new bridge, and furnish all labor and materials, except the steel or iron, and erecting, complete in place, the substructure as hereinafter specified and detailed on masonry sheet herewith, refilling such a part of the dock removed as directed by the Engineer, and the dredging of the channel of the river as hereinafter specified. And diverting sewer as shown on drawings and hereinafter specified. All steel or iron in the substructure, together with paint for same, will be furnished by the contractor for the superstructure, but the contractor for the substructure shall erect and paint such steel or iron in the field, as specified.

#### *Old Bridge.*

2. The bid for removal of existing structure must cover as a lump sum the removal of the entire superstructure; and as a lump sum, the removal of the substructure, including all masonry in pier and abutments, existing approaches, the protection pier and the pulling of all piles entering into its construction, all other protections and protection piles, necessary docking, and the pulling of all piles in or about the center pier and abutments. Such white oak or burr oak piles as are found after pulling to be in good condition and the requisite size and length may be used in the new work. The superstructure of the old bridge and all of the old material in the substructure removed and unfit for use in the new work shall become the property of and must be removed by the contractor, the cost of removing the same to be covered in the price bid for removing old substructure and superstructure as specified.

#### *Plans and Specifications.*

3. The accompanying plans form a part of the specifications, and, in the event of any discrepancy between the plans and these specifications, the judgment of the Engineer shall be decisive thereon. The figured dimensions on the drawings are to be taken whenever they do not agree with the dimensions obtained by scaling from the drawings.

#### *Detail Plans.*

4. All detail plans required shall be made at the expense of the contractor, and shall be submitted to the Engineer for approval before beginning work. Such detail plans shall have a uniform size of twenty-six (26) inches by forty (40) inches, inside border lines, with a border

margin of one-half ( $\frac{1}{2}$ ) inch. When submitted for approval, three (3) complete sets of prints of such detail plans shall be sent to the Sanitary District of Chicago. The contractor shall furnish the Sanitary District of Chicago with six (6) complete sets and F. M. Montgomery & Co. with two (2) complete sets of these approved plans, free of cost. No alterations of approved plans will be made by the contractor without the written consent of the Engineer. The approval of the Engineer will not relieve the contractor from the responsibility of errors thereon.

#### *Approval of Plans.*

5. All detail plans before accepted by the Engineer must be submitted to and meet the approval of Frank M. Montgomery & Co., who shall also have authority to inspect the erection of the work.

#### *Checking Plans.*

6. All of the accompanying plans shall be carefully checked by the contractor before beginning work. Should any errors be discovered, the Engineer's attention shall be called to the same and corrections made, after which the contractor shall be responsible for all errors which may occur or which may have occurred.

#### **QUALITY OF MATERIAL.**

##### *Piles.*

7. All foundation piles supporting masonry shall be Norway pine, and all others must be of white or burr oak. They must be sound and straight, not less than fourteen (14) inches at the butt nor less than nine (9) inches at small end, and of uniform taper. Piles for the piers are to be of such length that they may be driven, if possible, to rest upon the rock at the elevation shown on the plans.

##### *Timber.*

8. All timbers used in docks, anchors, sheeting, wales, fenders, etc., must be sound, straight and free from any defects which might impair its strength or durability, and be of such variety and dimension as thereinafter specified or shown on drawings.

##### *Broken Stone.*

9. All broken stone for concrete shall be as nearly as possible cubical in shape, free from dirt or other foreign substances, and, if screened, must also be free from flat chips or dust. Stones shall not be larger than two (2) inches in any direction, and in quality subject to the approval of the Engineer.

##### *Cement.*

10. The best Portland cement shall be used on this work, brand and quality to be subject to the approval of the Engineer. The weight per cubic foot of Portland cement shall be not less than

one hundred (100) pounds. The development of tensile strength for Portland cement shall be not less than four hundred (400) pounds per square inch, after being exposed one (1) day in air and six (6) days in water. All lumpy, dirty or damaged cement shall be rejected; also damaged or short weight packages.

##### *Sand.*

11. The sand shall be coarse, sharp and clean, free from all clay, loam or gravel, and of a quality approved by the Engineer.

##### *Brick.*

12. The brick for sewers shall be selected and of first grade of hard sewer brick, equal in quality to requirements of city ordinances.

#### **CLASS OF WORK.**

##### *Excavation.*

13. All foundations shall be prepared to receive the masonry by the contractor, who shall make excavation to such a depth and width sufficient to allow of the construction of the work herein specified. The contractor shall also, where necessary, supply and operate, free of cost, all pumps in order to keep the foundation excavation dry. The contractor shall provide, drive, frame and place all sheet piling or other timber work necessary to the successful excavation and protection of the foundation excavation, and shall maintain the same until masonry shall have been built. Such material excavated as is necessary for filling the approaches shall be deposited as directed by the Engineer within a limit of 400 feet from the site of the excavation, free of all cost or expense to the Sanitary District of Chicago. All other material excavated from the foundations, except such as shall be needed for filling back of and around the masonry of the new bridge, shall be removed entirely from the bridge site and disposed of as the contractor may see fit, free of all cost or expense to the Sanitary District of Chicago; but none of the material so excavated shall be deposited in any navigable waters, save as permitted by the United States Engineer Department. All refilling ordered by the Engineer shall be done without extra cost to the Sanitary District. The contractor must remove the old docks, side-walks and roadways, where it is necessary for the completion of the new bridge, and must do all the necessary filling behind the abutment walls and join the new and old work to the satisfaction of the Engineer.

##### *Piles.*

14. All piles must be driven by a steam hammer, unless otherwise directed by the Engineer, and if so directed by the Engineer, a follower shall be used in driving. If, in the opinion of the Engineer, any pile proves imperfect or becomes unfit for use under the hammer, or is not

driven straight, it must be removed by the contractor without extra cost. If so directed by the Engineer, the piles shall have the bark removed. Should any of the piles raise or change their position after being driven, they shall be re-driven, if so directed by the Engineer, at the expense of the contractor. All piles must be cut level and at proper elevation. Payment for piles must be made on the following basis: 1st. Per lineal foot for all piles delivered on the order of the Engineer, at the site of the work. 2d. For all piles driven per lineal foot below the cut-off line, the prices designated on the bid.

#### *Sheet Piling.*

15. Sheet piling and bracing may be of any timber suitable for the purpose and shall be of such dimensions and placed as directed by the Engineer. Cofferdams are to be built around the piers where, in the opinion of the Engineer, it is necessary, sufficiently heavy and strong to permit the excavation for foundations to a depth of thirty (30) feet below Chicago datum, to be kept dry during all times during construction. Any piles which may be used in the construction of the coffer-dam other than the sheet piling may be of any timber that will stand the driving and have the necessary strength to stand the strains to which they will be subjected. Upon the completion of the work, the coffer-dam around the piers are to be removed by the contractor at his own expense.

#### *Concrete.*

16. All concrete used shall consist of one part Portland cement, three parts sand and five parts screened broken stone, bulk measurement. If unscreened broken stone be used, the proportions shall be one part cement, two parts of sand and six parts of broken stone, and the mass shall be turned over at least one hundred (100) times by a mechanical mixer. If the Engineer will permit, the mixing of the concrete with screened broken stone may be done by hand on suitable platforms. The cement and sand shall first be thoroughly mixed dry, after which the stone, properly moistened, shall be added, with sufficient clean water to make the whole mass, when thoroughly mixed, a tenacious and quaking mixture, without surplus of water. The concrete shall be immediately deposited in the work in layers not over six (6) inches thick, each layer to be thoroughly and compactly tamped until the whole mass is perfectly solid and free mortar appears on the surface. No retempering shall be allowed. All loose stone and foreign material lying on the old concrete must be removed before laying any new concrete thereon. All dead concrete must be removed from the work. All the rods and anchor bolts must be solidly set in mortar of the quality specified. The placing of anchors and other metal work which must be bedded in the concrete is to be covered in the price bid for setting iron and steel in masonry.

#### *Mortar.*

17. All mortar used shall be of the cement and sand hereinbefore specified. When used for track girder protection, it shall be used in proportion of one part cement to four parts sand. For beds and joints it shall be mixed in proportions of one part cement and two parts sand, bulk measurement, and for pointing, plastering or setting anchors it shall consist of equal volumes of cement and sand. For counterweight and floor pit lining, and facing of abutments, it shall consist of equal volumes of cement and sand. These ingredients shall be thoroughly mixed dry, when sufficient clean water shall be added to make a paste of the proper consistency, and must be used at once. No mortar shall be used that has set or become stiff, nor shall any retempering be permitted.

#### *Abutments.*

18. There will be two abutments of the dimensions and location shown on the accompanying plans. They will rest directly upon hard clay, or upon piles, as detailed on the plans herewith. Where piles are used, they shall be driven as specified, and cut level at the elevations shown on the plans. If the ground on which the concrete is to be placed is soft, it shall be made compact by ramming cobble and broken stone in the same until it is solid and firm.

19. The anchorage columns, steel stiffening beams, tie rods, bolsters and anchor bolts shall be located and constructed as shown on the plans. The anchorages shall be held firmly and securely in place, while the concrete and stone work is being built up around them in layers, as specified, to the dimensions and form shown on the plans. The contractor shall make any and all templates which shall be called for by the Engineer, and place the same so as to secure accurate lines for setting any work that may require it. He shall set anchorage columns and track girders with bracing between them with utmost care. He shall also set any templates furnished by the superstructure contractor, and the cost of this work shall be included in the price to be paid for setting iron and steel in masonry.

#### *Water-tight Counter-weight Pits.*

20. The contractor shall build the abutments according to one of the two following methods proposed for securing water-tight counter-weight pits, as directed by the Engineer. The counter-weight pits and the outside of the abutments shall be faced with a cement mortar facing of four (4) inches thickness. There is also to be a six (6) inch layer of cement mortar at the top of the piles of abutments, as shown on the detail plans of the substructure. The cement mortar shall be of quality and materials hereinbefore specified. The contractor shall guarantee that upon completion the counter-weight pits will not leak. Or, if so ordered by the Engineer, the cement

mortar lining of piers, facing of abutments and layers at top of piles shall be omitted and replaced by concrete and a steel lining for piers, furnished by the superstructure contractor, shall be erected as hereinafter specified, by the substructure contractor, the price per pound extra for erecting this steel lining to be named in the bid.

21. If steel linings for piers are ordered by the Engineer, such linings shall be erected and secured to the masonry to resist water pressure, as shown on masonry sheet. This steel lining shall be erected, riveted and caulked, and the anchors set, as the concrete is placed. The outside surfaces of the steel lining shall be coated with asphalt paint, as directed by the Engineer. Such paint shall be furnished by the superstructure contractor. The substructure contractor shall guarantee that these linings will not leak when completed.

#### *Flooding.*

22. The contractor shall make such provision along and around the tops of the piers and abutments where indicated on detail plans, that a steel guard or protection of plates and angles may be readily and securely fastened there, if found necessary at some future time to protect the track girders and counter-weight piers from being flooded by high water. Provision has been made in the general plan for such a guard.

#### *Track Girder Protection.*

23. The track girders shall be protected by a steel trough composed of three-eighths ( $\frac{3}{8}$ ) inch plates and three by three by one-half ( $3 \times 3 \times \frac{1}{2}$ ) inch angles, where shown on detail plans, the intervening space being filled with Portland cement mortar, as specified. The protection to the track girders shall be erected after the superstructure contractor has erected and riveted all braces to track girder.

23a. The price per cubic yard to be paid for mortar in track girder protections shall be the same as the price for concrete named in the bid.

#### *Protection.*

24. The large corner clumps of the protections shall be fifty (50) foot oak piles, securely bound together with five (5) laps of three-fourths ( $\frac{3}{4}$ ) inch chain, spiked all around, with six by one-fourth ( $6 \times \frac{1}{4}$ ) inch wrought iron spikes. The piles in front and flank aprons will be of oak, fifty (50) feet long and spaced as shown. Caps to be twelve by twelve (12x12) inch oak, and wales of eight by twelve (8x12) inch oak, all secured as shown. Any temporary protection piles required shall be put in place and removed at the expense of the contractor.

#### *Refilling.*

25. Upon the completion of the masonry of the retaining walls, the roadways and sidewalks to the full width of wall shall be refilled by the

contractor to these retaining walls, finishing the roadway and sidewalks of the approaches ready for traffic and to the satisfaction of the Engineer, without extra compensation. All filling to be done with good material in layers, carefully tamped and watered to make the same solid and compact.

#### *Docking.*

26. All docking along either bank of the river, wherever disturbed or damaged, shall be reconstructed by the contractor to the satisfaction of the Engineer. The same must butt against the new work in a workmanlike and substantial manner.

#### *Removal of old Bridge—Dredging.*

27. The contractor shall commence the work of removing the old superstructure as soon as he shall be notified by the Engineer, and shall thereafter proceed diligently to remove the center pier, protection pier, abutments, old piles, and to do the channel dredging herein provided for. The contractor shall dredge the channel between dock lines for the entire length of the protection pier unless otherwise ordered in writing by the Chief Engineer to a depth of sixteen (16) feet at dock lines, increasing to twenty (20) feet below hydraulic grade line at forty (40) feet from the dock lines, the channel depth to be twenty (20) feet. The bid for dredging and removal of the material to be at a unit price per cubic yard. No obstruction of any kind or nature shall be left in the above described limits in the channel. All material deposited during the progress of the work during this contract in the river or adjacent streets or grounds must, upon completion of the contract, be promptly removed by the contractor at his own expense.

#### *Sewers.*

28. The contractor, when making excavation, shall provide proper supports for present sewer, and where necessary to tear out old sewer he shall provide, during construction of piers, a temporary duct to empty into the river. The contractor shall construct permanent sewers wherever so shown on plans, and properly connect same to city work, and such work must conform strictly to the requirements of the city ordinances. This work shall be covered in a lump sum named in the bid.

29. The contractor shall arch over and fill in old shaft of water tunnel, where such is indicated on plans, and the same shall be covered in lump sum named in bid.

30. The materials for above work to be same as specified for sewers.

31. The contractor shall, during construction, maintain the present water pipes, sewer and gas mains, or conduits of any kind, that may be unearthed by him. This maintenance must be done in a manner satisfactory to the Engineer

and to the Commissioner of Public Works of the City of Chicago.

32. No water shall be drawn from the fire hydrants until the necessary permit is procured.

#### *Examining Site.*

33. Prospective bidders for this work are required to carefully examine the existing structure to inform himself, or themselves, as to the magnitude and nature of the contemplated removals, and also the facilities for the delivery of new material at the site. No plea of ignorance of what is required, as a result of failure to make proper examinations, will in any case be accepted as a sufficient excuse for any failure or omission on the part of the contractor to fulfill in every detail all the requirements of this contract.

#### *Protection of Adjacent Structures.*

34. The contractor shall take all necessary precautions for the protection of walls and foundations of buildings or other structures contiguous to the excavation made for the foundations of this bridge, and shall keep the same safe throughout the period consumed in the erection of the structures covered by this contract, and shall leave the same in a permanently safe and secure condition. All to be done by the contractor free of cost or liability for loss or damages on the part of the Sanitary District of Chicago.

#### *Measurements.*

35. Measurements of all masonry shall be by the cubic yard, and all payments shall be made upon the actual cubical contents of the completed masonry within the lines as shown on the plans. Measurements of all materials shall be in accordance with the units of measurements as herein specified.

#### *Erection.*

36. The contractor shall furnish all staging and false work, shall erect and adjust all the metal work in substructure, shall furnish and put in place all templates to accurate lines, timber guards, and set and secure in place all masonry bolts. The contractor shall assume all risks of accidents to men or material prior to the acceptance of the finished structure. The contractor must also remove all false work, piling and other obstructions, or unsightly material produced by his operations.

#### *Final Acceptance.*

37. Any material or workmanship which does not satisfy the requirements of these specifications may be rejected by the Engineer at any time before the final acceptance of the work, and the contractor shall make good all deficiencies at his own cost. The fact that the authorized inspectors have inspected said material or workmanship shall not make the Sanitary District liable for extra cost for replacing the same with material or workmanship accepted by the Engineer on final acceptance.

#### *General Conditions.*

38. The drawings furnished form a part of these specifications, and any work shown therein shall be executed the same as if mentioned herein. The work is to be made complete and to the satisfaction of the Engineer, notwithstanding any omissions in plans or specifications.

#### *Changes in Plans.*

39. The quantity of work and material figured from the plans is approximate, and the Sanitary District reserves the right to make any changes in the plans or specifications which may be deemed necessary, either before or after beginning the construction thereof; provided, that if alterations are made, the general character of the work as a whole is not changed thereby. If such alteration diminish the quantity of work to be done, they shall not constitute a claim for damages nor for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract. Notice of change of plan must be given to the contractor in writing, and it is expressly agreed that no alterations or additions for extra work are to be paid for, unless so directed in writing.

#### *Extra Work.*

40. All claims for extra labor or material furnished by the contractor, or for damages from any cause whatever, must be reported to the Engineer at the time such labor or material is furnished or such damages occur, and they must also be presented to him in writing at the end of the month; provided that nothing shall be paid for as extra work that can be classified under any of the heads upon which prices are fixed by this contract. Whenever work is required to be done, which is not now contemplated or covered by the prices hereinafter given, the Committee on Engineering shall fix such prices for the work as they shall consider just and equitable, and the contractor shall abide by such prices, provided he enters upon such work with a full knowledge of the prices so fixed by the said Committee; but if the contractor declines executing said work at the prices fixed by said Committee, then the Sanitary District may enter into contract with any person or persons for its execution the same as if this contract had never existed; and if extra work or work not provided for in this contract is performed by the contractor before prices have been fixed for such work, then the Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said contractor shall accept such prices in full satisfaction of all demands against the Sanitary District for said extra work; provided, that if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of same can

be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work, with fifteen (15) per cent. added. Provided, further, that nothing shall be deemed extra work, which can be measured or estimated under the provisions of this contract.

#### *Responsibility of Contractor.*

41. It is further agreed that in all cases of question or dispute arising or growing out of this contract in any way regarding the cost or value of extras, variations, allowances, deductions or the amount of damages in any manner growing out of the violation of this contract, the decision of the Engineer shall be final and binding on both parties hereto. All work provided for in this contract is to be done under the direction and supervision of the Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without charge therefor, to enable the Engineer to properly give lines and grades and to inspect and measure the work from time to time.

42. All material of whatever kind to be used in the work will be subject to the inspection and approval of the Engineer. All unsuitable or rejected materials must be removed from the premises at once by the contractor.

43. All work shall be subject to constant inspection before acceptance. Any unfaithful or imperfect work that may be discovered before its final acceptance shall be corrected immediately, and any unsatisfactory material used in the work shall be rejected and removed on the requirement of the Engineer, notwithstanding they may have been overlooked by the inspector and estimated. The inspection of any work shall not relieve the contractor of any of his obligations to perform sound work, as herein specified, and all work which, during its progress and before its final acceptance, may become damaged from any cause, shall be removed and replaced by good and satisfactory work.

44. The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to sublet all or any part of it; it being distinctly understood and agreed that the subletting of the work covered by this contract, or any part thereof, shall, after thirty (30) days' notice, work a forfeiture of the contract at the option of the Sanitary District.

44 a. In the event of any action at law, or in equity being taken by any person, persons or corporation, which would restrain the Sanitary District from giving or the contractor from se-

curing possession of the site of the bridge, or in any way delay the execution of this contract, then in that case, the contractor shall not hold the Sanitary District liable for any loss or damage by him sustained on account of such interference, and the contractor shall be accorded an extension of the period within which the work was to have been completed by the terms of the contract, equal to the time lost by reason of such restraint.

45. During all periods of construction the contractor shall uninterruptedly keep open for navigation a channel of sufficient width in the river to permit continuous traffic on the same.

46. The contractor shall conform to all the ordinances of the City of Chicago and the regulations imposed by the United States Government in any manner affecting this work, and he will release the Sanitary District of Chicago from all responsibility for loss or damage occasioned by delays or inconveniences due to the navigation of the river by vessels of any sort or description or for other causes not now foreseen. He shall also be responsible for and make good all damages to adjoining property which may be occasioned by him or his work in the execution of this contract.

47. The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case the contractor fails to comply with the provisions of this contract as to progress and character of work, he shall be duly notified in writing, and thirty (30) days after the giving of said notice the Sanitary District may declare this contract forfeited, if there is a substantial failure to comply with its provisions.

#### *Tools.*

48. The contractor is to furnish all the tools of every description, including pumps, cars and tracks, boats, barges and tugs necessary to the full and complete carrying out of this contract, and on completion of the work is to remove all tools, building and materials of all kinds from the site of the bridge.

#### *Precautions.*

49. Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, shall be taken by the contractor.

#### *Workmen.*

50. The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work will be employed where special skill is required, and in the employment of men preference shall be given to union laborers. It is especially understood

and agreed that eight (8) hours shall constitute a day's work, and that no workman shall be employed or required to work more than eight (8) hours out of any twenty-four (24) hours, and no work in excess of that time shall be allowed. In the event of any violation of the above eight (8) hour provision, it is agreed hereby that the said District shall, and that it is duly authorized to retain from any money due, or to become due, at any time from it to the contractor, as liquidated damages, the sum of five dollars (\$5) per hour for each hour that any employee shall be required to work in excess of eight (8) hours per day, pursuant to the terms and conditions of the ordinance adopted June 23rd, 1897, attached hereto.

#### *Patents.*

51. It is further agreed that the contractor shall indemnify, keep and save harmless said Sanitary District from all liabilities, judgments, costs, damages and expenses which may in anywise come against said Sanitary District, or which may result on account of any infringement of any patent by means of the use of any materials, machinery, device or apparatus used in the performance of this contract, or of designs furnished by the contractor and accepted by the Sanitary District, except the patents on a bridge design of the Schorzer type controlled by Frank M. Montgomery & Co., and in the event of any claim or suit or action at law or equity of any kind whatsoever being made or brought against said Sanitary District, then the Sanitary District shall have the right to retain a sufficient amount of money in the same manner and upon the same conditions as hereinafter in the next following clause of this contract provided.

#### *Damages.*

52. If any damage shall be done by the contractor or by any person or persons in his employ to the owner or occupants of land, or to any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, the Engineer shall have the right to estimate the amount of said damage, and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for said damages shall be deducted from the money due said contractor, under this contract. Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself, or his employees, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District, for, or on account of, any such injuries, or such damages received or sustained by any person or persons, by or from said contractor, servants, agents, or employees, in the execution of said work; or by or in consequence of any negligence in guarding the same; or by or on account of any omission or act of said contractor, his

agents or employees; and the said contractor further agrees that so much of the money due to him under and by virtue of this contract as shall be considered necessary by the Board of Trustees of the Sanitary District may be retained by the said Sanitary District until such suit or claim for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

#### *Time.*

53. The contractor shall commence the work of removal of old superstructure as soon as he shall be notified to do so by the Engineer and shall thereafter proceed diligently to remove the center pier, protection pier and abutments and prosecute the building of the structure herein specified for and to do the channel dredging as herein provided for, so as to complete same on or before the first day of December, 1901.

#### *Penalty.*

54. The contractor hereby agrees to forfeit as liquidated damages for any non-compliance with or non-fulfillment of the provisions of this contract within the time specified fifty dollars (\$50) per day for each day beyond December 1, 1901, within which the work hereby provided is to be completed, time being an essential part of this contract.

#### *Substructure Prices.*

55. In consideration of the said work being carried on and completed in time and manner as hereinbefore specified, the said Sanitary District agrees to pay to the said contractor for the substructure the following amounts, and the said contractor agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit:

(a) For each cubic yard of excavation, price to include all necessary refilling as specified, the sum of forty-nine cents (\$0.49).

(b) For sheet piling and bracing, per 1,000 feet, B. M. (price named to include all spikes, bolts or other iron used in constructing same), as per terms of this contract, the sum of thirty-six dollars and seventy-five cents (\$36.75).

(c) For oak timber in wales, fenders in pier protections and docks, per 1,000 feet B. M. (price named to include all spikes, bolts, tie rods, bands or other iron to be used in constructing same), as per terms of this contract, the sum of forty-one dollars and fifty cents (\$41.50).

(d) For pine foundation piles, delivered at the site of the work, as specified, per lineal foot, the sum of nineteen cents (\$0.19).

(e) For oak protection piles, delivered at the site of the work, as specified, per lineal foot, the sum of twenty-two cents (\$0.22).

(f) For piles driven in foundations, as speci-

fied, per lineal foot, the sum of twelve cents (\$0.12).

(g) For oak piles driven in protection and docks, as specified, per lineal foot, the sum of eight (8) cents.

(h) For each cubic yard of Portland cement concrete, as specified, the sum of five dollars and thirty cents (\$5.30).

(i) For each cubic yard of cement facing for counter-weight pits, and for abutments, as specified, the sum of twenty-two (\$22.00) dollars.

(k) For erecting, riveting, caulking and painting water-tight steel lining for counter-weight pits, as specified, the sum of three quarters ( $\frac{3}{4}$ ) of a cent per pound.

(l) For erecting, riveting, caulking and painting protections to track girders, in place, as specified, the setting of all anchor columns, anchor rods, tie rods, beams, in fact, all iron or steel set in masonry, as specified, the sum of one-half ( $\frac{1}{2}$ ) cent per pound.

(m) For the removal of the present superstructure, as specified, the sum of two thousand two hundred (\$2,200.00) dollars.

(n) For the removal of abutments with their protection docks, center-pier and its protection and the approach of the present superstructure, as specified, the sum of two thousand six hundred dollars (\$2,600.00).

(o) For the removing of old sewers, maintaining flow during construction of bridge and reconstructing the diverted sewers, the sum of thirteen hundred dollars (\$1,300.00).

(p) For each cubic yard of dredging in channel, including the removal of dredged material, the sum of sixty-five (65) cents.

The prices proposed must include all royalties for patents, or patented material and appliances used in the construction of the work described in the specifications and agreements; and before final payment is made the contractor shall furnish a satisfactory guarantee against all claims; provided, however, this does not apply to the patented design of the bridge of the Scherzer Rolling Lift Bridge Company, the right to use the same having been purchased by the Sanitary District.

56. It is agreed by the party of the first part that on or before the 10th and 25th days of each month during the progress of the work and subject to the provisions hereinbefore specified under the head of "Time," payment will be made to the said party of the second part to the amount of eighty-seven and one half ( $87\frac{1}{2}$ ) per cent of the contract price of the substructure of the approximate amount of work done during the previous half month, upon written certificate from the Engineer that such approximate

amount of work has been done during that period: twelve and one-half ( $12\frac{1}{2}$ ) per cent being reserved until the completion and acceptance of the whole work.

57. Upon the completion of the substructure in accordance with the specifications and contract, to the full satisfaction of the Engineer, and upon the inspection of same and the issuance of the final certificate by the Engineer, the said party of the first part agrees to pay to the said party of the second part the amounts shown to be due to said second party by the said certificate of said Engineer, including the twelve and one-half ( $12\frac{1}{2}$ ) per cent reserved.

58. It is further agreed by the said party of the second part that if the work to be done under this contract on the substructure shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or if at any time the Engineer shall be of the opinion and shall so certify in writing to the said party of the first part that said work, or any part thereof, is unnecessarily and unreasonably delayed, or that the contractor is wilfully and persistently violating any of the conditions or covenants of this contract, or is not fulfilling said contract in good faith, the said party of the first part shall have the power to notify the said contractor to discontinue all work, or any part thereof, as may be designated by the said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams and to obtain such machinery, implements and tools, and to purchase such material as the said Engineer may deem necessary to complete the work herein described, or any part thereof. And, in so doing, said Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work by the said Engineer shall be charged to the said contractor, and the expenses so charged shall be deducted and paid by the said party of the first part out of such moneys as may be due or may at any time thereafter become due to said contractor, under and by virtue of this contract, or any part thereof, so far as the same shall suffice therefor; and the balance, if any, shall be paid by said contractor on demand. Should the amount remaining unpaid of the contract price not suffice therefor then said contractor and his bondsmen shall be held liable for the deficiency. If at any time during the progress of said work the said contractor shall fail or neglect to pay for labor performed or material furnished upon said work for ten (10) days after it shall have become due, then the party of the first part shall have power to pay for such labor or for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any



sort or kind used or consumed in, upon or on account of the work covered by this contract; the party of the first part shall have the power to pay for such labor or materials, explosives, machinery, appliances, fuel, provisions or supplies of whatsoever sort or kind, out of moneys that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor. In any such case the party of the first part is hereby authorized and empowered by the party of the second part to ascertain by its engineer the amounts due or owing from said contractor to any laborer or laborers, or to any person or persons, for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind consumed upon, in or on account of the work covered by this contract in such manner and upon such proofs as the said engineer may deem sufficient.

#### *Contractor's Bond.*

59. The contractor shall furnish bond in the sum of forty thousand (\$40,000.00) dollars for the substructure of this bridge, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned upon the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of the said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten (10) days notice thereof in writing, require said contractor to furnish a new and additional bond in place of the bond so having become insufficient or worthless.

#### *Final Payment.*

60. The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement; nor until all of the stipulations hereinbefore mentioned are complied with, and the said Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work, should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

IN WITNESS WHEREOF, On the day and year first above written, the said Sanitary District of

Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set its hand and seal.

THE SANITARY DISTRICT OF CHICAGO,

[SEAL] By ALEX J. JONES,

*President.*

Attest:

A. R. PORTER,

*Clerk.*

JACKSON & CORBETT COMPANY,

[SEAL] By GEORGE W. JACOBSON,

*President.*

Attest:

WM. E. BELL,

*Secretary.*

Approved:

ISHAM RANDOLPH,

*Chief Engineer.*

Approved:

JAMES TODD,

*Attorney.*

#### SUPERSTRUCTURE FOR RANDOLPH STREET BRIDGE.

SANITARY DISTRICT OF CHICAGO.

Contract and Specifications for the Superstructure of a Highway Rolling Lift Bridge of the Scherzer type, crossing the South Branch of the Chicago River, in the City of Chicago, to be built for the Sanitary District of Chicago.

*This Agreement*, Made and entered into this first day of July, A. D. 1901, by and between the Sanitary District of Chicago, of the first part, and American Bridge Company of New York, a corporation organized and existing under and by virtue of the laws of the State of New York, of the second part.

A—

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete

doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the Highway Rolling Lift Bridge for the Sanitary District of Chicago, crossing the South Branch of the Chicago River at Randolph Street in the City of Chicago.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer or other designated representative of the Sanitary District of Chicago, and his properly authorized agents, and by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer or other designated representative shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein expressed; and the Chief Engineer or other designated representative of the Sanitary District in charge of said work shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Wherever the words "Sanitary District" are used in this contract, they shall be understood to mean the Sanitary District of Chicago, as represented by the Board of Trustees of the Sanitary District or their duly authorized and accredited agents.

Whenever the word "Engineer" is used herein, it shall be understood to mean either the Chief Engineer of the Sanitary District of Chicago, or the duly designated representative of the Sanitary District.

Wherever the word "Contractor" is used herein, it shall be understood to mean the person or persons or co-partnership or corporation entering into the contract as party of the second part.

The following ordinance, passed by the Board of Trustees of the Sanitary District of Chicago, June 23, 1897, is hereby made a part of this contract, and the party of the second part agrees to comply with its provisions, and in case of violation thereof to be subject to the penalties therein authorized to be imposed:

*"Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

*"Section 1.—That in the preparation of all future specifications for contracts for the construction of the Main Channel and auxiliary works, the Engineering Department shall provide that such contracts shall be executed in conformance with the law constituting eight (8) hours a legal day's work in all contracts under the Sanitary District of Chicago, and that, in the employ-*

*ment of labor, contractors shall be required and specifically agree to give preference to Union labor.*

*"Section 2.—That all contracts hereafter executed for the works of the Sanitary District of Chicago shall contain provisions constituting eight (8) hours a legal day's work, and forbidding the employment of any employe or employes for a longer period than eight (8) hours in any twenty-four (24) hours, and that said contract shall vest specific authority in the Police Department of the Sanitary District of Chicago to exercise supervision for the enforcement of this provision and shall provide that the Board of Trustees of the Sanitary District of Chicago shall be empowered, in all cases of violation of said eight (8) hour law, to deduct and retain from any money accruing to said contractors a sum as liquidated damages at the rate of five dollars (\$5 00) per hour for each employe who shall be required to work in excess of eight (8) hours per day by any contractor on said Canal."*

## SUPERSTRUCTURE.

### GENERAL.

#### *Work Included.*

1. The work included under the contract for the superstructure consists in furnishing all materials and labor, and erecting, complete in place, ready for operation, the superstructure, operating machinery, locks, electrical equipment, river and highway signals, houses, stairs, etc., wooden floor, sidewalks, gas pipe railing, with the necessary spikes, bolts and washers, and the furnishing of all anchor rods, tie rods, track girder protections, I beams, anchor columns; in fact all iron or steel to be set in structure, including all templates for setting same, and shall be furnished by the contractor at the site and at such time as may be required by the progress of the work of the substructure contractor. The contract for the superstructure, in fact, includes everything not included in the substructure contract to put the bridge in complete working order, except the motive power, which will be electricity furnished at the switchboards in the operator's houses. The removal of the old bridge is included in the contract work on the substructure. The steel linings for the counter-weight pits are to be furnished by the contractor, if so ordered by the Engineer, at the separate pound price named in this bid.

#### *Plans and Specifications.*

2. The General Specifications for Steel Highway Bridges and Viaducts, by Theodore Cooper, 1896 edition, shall govern in regard to quality of material, proportion of parts, general details of construction, workmanship, painting, erection and inspection, and all other respects, except in the changes and additions herein specified.

3. The accompanying plans form a part of the

specifications, and in the event of any discrepancy between the plans and these specifications, the judgment of the Engineer shall be decisive thereon. The figured dimensions on the drawings are to be taken whenever they do not agree with the dimensions obtained by scaling from the drawings.

#### *Detail Plans.*

4. All detail and shop plans required shall be made at the expense of the contractor, and shall be submitted to the Engineer for approval before beginning work. Such detail plans shall have a uniform size of twenty-six (26) inches by forty (40) inches, inside border lines, with a border margin of one-half ( $\frac{1}{2}$ ) inch. When submitted for approval, three (3) complete sets of prints of such detail plans shall be sent to the Sanitary District of Chicago. The contractor shall furnish the Sanitary District of Chicago with six (6) complete sets and F. M. Montgomery & Co. with two (2) complete sets of these approved plans, free of cost. No alterations of approved plans will be made by the contractor without the written consent of the Engineer. The approval of the Engineer will not relieve the contractor from the responsibility of errors thereon.

#### *Approval of Plans, Etc.*

5. All detail and shop plans before accepted by the Engineer must be submitted to and meet the approval of Frank M. Montgomery & Co., who shall also have authority to inspect the erection of work.

#### *Checking Plans.*

6. All of the accompanying plans shall be carefully checked by the contractor before beginning work. Should any errors be discovered, the Engineer's attention shall be called to the same and corrections made, after which the contractor shall be responsible for all errors which may occur or which may have occurred.

#### **QUALITY OF MATERIAL.**

##### *Wrought Iron.*

7. All wrought iron used shall have an ultimate tensile strength of not less than 48,000 pounds per square inch, an elastic limit of at least 26,000 pounds per square inch, and an elongation of at least 20 per cent in eight inches, and be so ductile that, when bent cold through 180 degrees and hammered down flat on itself, it shall show no signs of fracture on convex side of curve.

##### *Steel.*

8. All steel shall be uniform in quality and made by the "Open Hearth" process.

##### *Structural Steel—Number of Tests.*

9. All structural steel shall be medium steel, uniform in quality, and shall be made by the "Open Hearth" process. Tests shall be made upon pieces cut from the finished material, and

shall be not less than one-half ( $\frac{1}{2}$ ) square inch in sectional area. At least one tensile and one bending test shall be made from each melt of steel as rolled. Also, at least one tensile and one bending test shall be made of each "variety" of material into which a melt is rolled. Each of the following shall constitute a "variety:" (1) angles and "Z" bars; (2) I-beams and channels (3) universal plates; (4) sheared plates; (5) bars and rounds. Also, steel varying materially in thickness from the steel tested shall be separately tested. If more than ten tons is rolled from any melt for this order, then at least two tensile and two bending tests shall be made from the steel of such melt as rolled, but not more than one test of either kind shall be made from a single piece of steel as rolled. When tested in specimens as above, medium steel shall have an ultimate tensile strength of from sixty thousand (60,000) pounds to sixty-eight thousand (68,000) pounds per square inch, an elastic limit of not less than thirty-six thousand (36,000) pounds per square inch, shall elongate not less than twenty-five (25) per cent in eight (8) inches, and show a reduction of area at point of fracture of not less than forty (40) per cent. The test piece must also bend cold one hundred and eighty degrees (180°) around a curve whose diameter is equal to the thickness of the piece, without crack or flaw on convex side of bend. A hole punched for a three-quarter ( $\frac{3}{4}$ ) inch rivet, one and one-half ( $1\frac{1}{2}$ ) inches from the edge of the plate, shall be capable of being enlarged by drifting to one and one-eighth ( $1\frac{1}{8}$ ) inches in diameter, without sign of fracture.

##### *Rivet Steel.*

10. Rivet steel shall have an ultimate strength of fifty thousand (50,000) to fifty-eight thousand (58,000) pounds, and an elastic limit of not less than fifty-five (55) per cent of the ultimate; an elongation of not less than twenty-seven (27) per cent in eight (8) inches, and must bend one hundred and eighty degrees (180°) flat on itself without sign of fracture on convex side of bend.

##### *Hand Riveting.*

11. All rivets, whether shop or field, shall be of the best quality of rivet steel, as specified. Specimens taken from all grades of steel, after being heated to a light cherry red (as seen in the dark) and quenched in water of eighty-two degrees (82°) Fahrenheit, must conform to the bending requirements above.

##### *Chemical Analysis.*

12. The chemical analysis for carbon and phosphorus of each melt must be furnished to the Engineer or his inspectors before any of the material rolled from said melt is shipped from the mill. Phosphorus must not exceed .06 per cent for acid steel, or .04 per cent for basic steel.

*Chippings and Alterations.*

13. All blooms, billets or slabs shall be examined for surface defects, flaws or blow holes before being rolled into the finished sections, and such chippings and alterations made as will secure perfect solidity in the finished sections.

*Marking.*

14. The original melt number must be painted or stamped on all blooms, billets or slabs, in order to identify the material throughout the various processes of manufacture, and the original melt number must be stamped on each piece of finished material from said melt.

*Finish.*

15. All finished rolled material must present a smooth, clean surface, free from buckles, flaws, cracked, ragged edges, or any other defects, and must be straight throughout and true to section.

*Brittle Steel.*

16. No steel which proves brittle shall be used under any circumstances; if it develops this character at any stage of its manufacture, it shall be at once condemned and other material used. The object of the more particular clauses, hereto relating, being to guard against the possibility of the use of this class of metal.

*Steel Castings.*

17. All steel castings shall have an ultimate strength of not less than sixty-two thousand five hundred (62,500) pounds per square inch, an elastic limit of not less than thirty-two thousand (32,000) pounds per square inch, shall elongate not less than twenty-five (25) per cent in two (2) inches, and show a reduction at point of fracture of not less than thirty (30) per cent. The amount of phosphorus contained shall not exceed .06 per cent. All steel castings shall be sound and free from blow holes and roughness, sponginess, pitting, shrinkage cracks and other cracks, cavities, etc., and shall be thoroughly annealed according to the best practice. Each cast shall be so made that sufficient number of test pieces can be cut as to enable the Engineer or his inspectors to satisfy themselves of its quality.

*Machinery Steel.*

18. The material used for shafting and forgings, except where otherwise specified, shall be of "medium" basic or acid "open hearth" steel, of a good finish and uniform quality, in which phosphorus shall not exceed .06 per cent. When tested in specimens of not less than one-half ( $\frac{1}{2}$ ) square inch sections, it must show an ultimate strength of sixty thousand (60,000) to sixty-eight thousand (68,000) pounds per square inch, with an elastic limit of at least fifty per cent. (50%) of the ultimate, and an elongation of at least twenty-five per cent. (25%) in eight (8) inches, and forty per cent. (40%) reduction in area at point of fracture, and it must bend cold one hundred and eighty

(180) degrees over a diameter equal to its thickness without sign of fracture.

*Cast Iron.*

19. Cast iron, except counter weight castings, must be the best quality of soft gray iron. The casting must be free from flaws, ragged edges, or any other defects impairing its efficiency or appearance; and bars of a section one (1) inch square, placed four (4) feet six (6) inches between supports, must be strong enough to bear a weight of five hundred (500) pounds placed half way between supports.

20. Phosphor bronze shall be of the best quality for the purpose for which it is to be used. The castings shall contain eighty-eight (88) per cent. of copper and twelve (12) per cent. of phosphorized tin; the phosphorized tin to contain five (5) per cent. of phosphorus. Upon each casting shall be cast suitable test pieces, which, in breaking, must show a good uniform metal, and when broken in testing machine shall show at least thirty-five thousand (35,000) pounds ultimate tensile strength.

*Babbitt Metal.*

21. All the babbitt metal used shall have the following composition: Fifty (50) parts tin, one (1) part copper, five (5) parts antimony.

*Counter-weight.*

22. The counter-weight blocks shall be of cast iron. They must be smooth and true to dimensions with one-quarter ( $\frac{1}{4}$ ) inch, and free from cracks and blow holes.

*Live Load.*

23. The live load used in calculations shall be Cooper's Specifications for Steel Highway Bridges and Viaducts, 1896 Edition, Class A 1.

*WORKMANSHIP.**Character of Work.*

24. More than ordinary care must be taken to have all workmanship strictly first class. The bearings for all shafts must be set to a true line, parallel, and the proper distance between centers. No shimmming will be allowed. All bolt holes for connection to the structure of any part of the work to be done under these specifications must be drilled in the field, and all bolts must be turned to a driving fit. All shafting must be turned, care being taken to leave the proper fillets at points where the diameter is reduced, and all shafts five and one-half ( $5\frac{1}{2}$ ) inches and over in diameter shall be bored their entire length. All parts of the machinery shall be so designed as to be readily removed and replaced by new parts.

*Nut Locks.*

25. Positive nut locks for all bolts shall be furnished, subject to the approval of the Engineer.

*Gear Wheels.*

26. All gear wheels must be closely bored to fit their axles or shafts, and properly keyed to the same. They shall be of cast steel, as herein specified, and one duplicate of each different gear shall be furnished by the contractor, if ordered by the Engineer, at the price per pound named in the bids. All gears are to be molded from patterns, and such patterns will become the property of the Sanitary District, as herein specified.

*Irregularities.*

27. Any irregularities that may occur in the teeth of the gears or rack castings must be chipped to template.

*Bearings.*

28. All bearings, unless otherwise shown on the plans, shall be babitted.

*Oil Cups.*

29. Proper provision must be made for oiling all bearings, using oil cups approved by the Engineer.

*Wrenches.*

30. Suitable wrenches to fit the nuts of all bolts shall be furnished by the contractor without extra charge.

*Track Girders.*

31. The web plates and top flange plates, and angles of the track girders, must be faced on top; the cast-steel track plate must get perfect bearing on them. The stiffener angles must have perfect bearing under the flange angles. The cast-steel track plate must be planed on top, outside of the teeth—see detail on track-girder sheet—and over the bottom surface, and the projecting teeth on all four sides to true width and pitch.

*Segmental Girders.*

32. The segmental girders, with their track plates and the several members connecting to them, must be assembled in the shop and all rivet holes reamed to proper size, and all pieces properly marked before taking them apart. The web plates of these segmental girders and the flange plates and angles must be faced to be absolutely true to the circle called for and out of wind. The track plates must be faced on top, bottom and ends to get a perfect bearing on them, and also present a true circular surface on the outside. The square holes in the track plates, which engage with the teeth on the track girders, must be cut out to exact pitch, and the width must be such that the lateral play is not more than one-eighth ( $\frac{1}{8}$ ) inch.

*Operating Struts.*

33. The operating struts, where used, must be perfectly true and straight for their full length.

The cast-steel rack, forming a part of them, must be planed on both sides and both ends, on center top rib and on the edges at the sides of the teeth to the height of the pitch line, and riveted up so that the pitch is uniform and the pitch line absolutely straight. The pin holes must be bored so that the axis of the hole shall be at a true right angle with the center line of the strut and exactly in the pitch plane of the teeth. The several pieces of rack must be examined carefully, and, if any difference is found between them, those varying the same should be placed so in the struts that they come opposite each other. The cast-steel racks must all be placed by measuring from the center of the pin, and no variation of more than one thirty-second ( $\frac{1}{32}$ ) inch will be allowed. Tap-bolts one (1) inch diameter shall be used and made to connect the web plate to every second (2d) tooth, near the pitch line on each side of strut.

*Operating Rack.*

34. The curved operating pin rack, where used, in the top chord and tall end of each truss shall be laid out together with the segment and other supporting members to full size in the template shop, the curvature of the pin rack being thus determined with great care. The several pieces comprising this portion of the bridge shall be assembled in the shop and the connections reamed in place before shipment to insure accurate field erection. The pin holes in the curved pin rack shall be accurately bored at right angles to the truss members after the parts have been assembled and connections reamed, the several parts being firmly held in place by turned bolts completely filling the rivet holes. Such turned bolts shall also be used in field erection. No variation of more than one-thirty-second ( $\frac{1}{32}$ ) part of an inch, center to center of pins, will be allowed.

*ERECTION OF MACHINERY.*

35. The trusses marked "A" and "B," where used, on plans which support machinery must first be erected in the shop and all parts carefully and accurately fitted in order to insure the exact alignment of bearings and meeting of pitch lines of gears and rack, after which the trusses may be taken apart for shipment. All holes for field rivets must be reamed and holes for machinery bolts drilled, and bolts turned to exact but not driving fit.

36. The bottom of vertical posts shall be faced to true surface and at right angles to their axis and the bearing plates shown shall be planed on top to true surface.

37. When erected, the shaft supporting the main pinion must be at a true right angle to the axis of the operating strut, so that the teeth of the pinion shall accurately engage the teeth of the operating strut on their respective pitch lines the entire width of the teeth.

## ELECTRICAL EQUIPMENT.

*Locks.*

38. The center lock, shown on truss detail sheet, consists of a long tongue fastened between the members of the chord of Leaf No. 1 (which has one controller), extending into the members of the chord of Leaf No. 2 (which has two controllers), and resting on a diaphragm between the members of Leaf No. 2. It also consists of a short extension of the members of the chord of Leaf No. 2, resting on brackets fastened to the members of Leaf No. 1. In operating the bridge (closing), Leaf No. 2 will be lowered first to a position in which the brackets of Leaf No. 1 will clear the extension of leaf No. 2 within a few inches; then leaf No. 1 will be lowered until its tongue touches the diaphragm of Leaf No. 2, after which both leaves will come down together. In operating the bridge (opening), both leaves are raised simultaneously. Indicators, approved by the Engineer, must be provided which will show the position of each leaf during operation to each operator, day and night.

39. For each truss of each leaf of the bridge there shall be one rear lock, located and attached as shown on the machinery detail sheet. The rear locks are applied by gravity and opened by solenoids, each solenoid to have a lifting capacity of four hundred (400) pounds over and above the weight of its iron core and lock, when plunger is farthest out, and a stroke of six (6) inches.

40. The rear locks must be operated from the operator's houses, and so wired that the first notch of the controller lever operates the locks, releasing them. The rear locks of Leaf No. 1 must be fitted out with submarine electric connections, to be operated in the manner described above, from either of the two operator's houses. Indicators must be provided which show the positions of the locks to the operators, day and night, and the position of the rear locks on Leaf No. 1 must be indicated in the same manner to the operator on the opposite side of the river.

*Brakes.*

41. Each leaf of the bridge shall be provided with two foot lever band brakes, located and attached as shown on the machinery detail sheet, the wheels of which shall be made of cast steel, the face to be turned. The brake bands shall be of steel, lined with  $2\frac{1}{2}$ -inch soft iron strips. They shall be so connected to one foot lever in the operator's houses that the pressure of the operator's foot will be distributed equally to each brake, but they shall be arranged in such a manner that the working of either brake will not be affected by failure of the other.

*Motors.*

42. Each leaf of the bridge shall be operated by electric motors, located and attached as shown on machinery detail sheet. These motors

shall be of the railway type, series wound, single reduction, multi-polar, water proof, with steel frame and iron clad-armature; each to have a capacity of horse power as shown on machinery detail, at normal speed and five hundred (500) volts, and to be capable of carrying an overload of thirty-three and one-third per cent. (33 $\frac{1}{3}$ %) for thirty (30) minutes or fifty per cent. (50%) for five (5) minutes, without injurious heating. The armature speed not to be more than six hundred (600) revolutions per minute, when the horse-power hereinbefore specified is being delivered by the motor at five hundred (500) volts. With each motor shall be furnished a cut pinion and gear with a standard reduction of 1:47.8. If any other reduction is used, the next pair of gears shall be changed correspondingly, so that the speed of the remaining train of gears will not be changed as originally designed. These pinions and gears shall be protected by a removable gear case. The contractor shall furnish one extra armature, field coil, pinion and split gear, same to be duplicates of those furnished with the motors. The motors and solenoids for brakes and tail locks shall be arranged in shunt.

*Pumps and Auxiliary Motors.*

43. Two pumps and two electric motors for operating such pumps shall be furnished and set by the contractor, one on each side of the river, with necessary wiring and connections to switchboard and piping. They shall be of such size and capacity as to pump the counter-weight pits, if filled with water, dry in one hour, and shall be of such design and detail as will meet the approval of the Engineer and F. M. Montgomery & Co.

*Controllers.*

44. One controller, to be placed in each operating house to govern the main operating bridge motors, shall be of the reversible type, fitted with a device for blowing out, and shall be capable of varying and maintaining the speed of the motors from slow speed at the starting point to a maximum speed when full on, without sparking, and without shock or jar. It shall be of ample carrying capacity to transmit for one-half ( $\frac{1}{2}$ ) hour, without injurious heating, thirty-three and one-third per cent. (33 $\frac{1}{3}$ %) above the normal amount required by the motors at full load, or transmit for five (5) minutes fifty per cent. (50%) above the normal amount required by the motors. An additional controller, fulfilling the same requirements, shall be provided and placed in the operator's house on the side of the river designated by the Engineer, and so connected by submarine cables, switches, etc., as to be able to control the leaf of the bridge on the opposite side of the river. Care shall be taken to place the long tongue of the center lock on the leaf of the span opposite this additional controller. The first notch, or the first position of each controller lever, shall only release the electric brakes and

rear locks, the second notch or position of the controller lever being the first to cut out resistance from and start the operating motors. Two starting boxes for the pump motors shall be provided and placed on the switch-board, one in each operator's house.

#### *Wiring and Cables.*

45. All wiring from the end of the supply wire on the switch-board in the operators' houses on each side of the river shall be furnished by the contractor. All wiring between the switch-boards, motors, signals and lights, except the wiring within the operating houses, shall be lead covered, with rubber insulation, and run in iron conduits. Between the switch-boards in the operators' houses shall be furnished and laid, thirty-two (32) feet below Chicago datum, iron armored submarine cables of sufficient insulation and capacity to carry safely the necessary current in strength and frequency to perform the various operations of the motors, locks and brakes, as designated above. All of this work to be subject to the approval of the Engineer and F. M. Montgomery & Co.

#### *Lights.*

46. In the operators' houses on each side of the river shall be placed five (5) 16-candle-power lights, and ten (10) additional lights with waterproof sockets shall be placed on each side of the river about the machinery at such points as will be designated by the Engineer.

#### *Cut-Outs.*

47. An automatic circuit breaker shall be placed between each feeder and the switch-board. Each submarine cable, each line to motors, each line to solenoids, and each lighting circuit shall be protected by suitable cut-outs, adapted to five hundred (500) volts and the load of the motor.

#### *Switches and Boards.*

48. Suitable switches shall be provided for each motor circuit and for each supply wire. The switches to be of ample carrying capacity for their respective loads, and to be mounted on a suitable switch-board, which shall be placed in a convenient position in each operator's house.

#### *General.*

49. All switches, cut-outs and buttons shall be suitably named and labeled, as directed, indicating their office. A voltmeter, equal to the Weston in quality, shall be placed in each operator's house on the switch-board. The contractor shall also provide and place on each switch-board one ammeter, reading to two hundred (200) amperes, and one fifty thousand (50,000) ohm magneto testing bell.

#### *Operator's Houses, Stairways, etc.*

50. On each side of the river, located as shown

on the approach detail sheet, shall be built and secured in place an operator's house, to be of such general dimensions and appearances as shown on the detail sheet of operator's houses. Stairways and walks of wood on steel framing, from the machinery to the ground, and from the operating house to the machinery, and a wooden house to protect the machinery and electrical equipment from the weather, shall be provided and placed, subject to the approval of the Engineer.

#### *Heating.*

51. Two coal stoves with suitable cast iron pipes and chimneys shall be furnished and set in each operating house subject to the approval of the Engineer.

#### *Railings.*

52. Railings shall be made of gas pipe, of such size and design as shown on the detail drawing furnished herewith.

#### *Signals.*

53. At the extremity of both river arms shall be secured suitable standards, upon which shall be mounted signal stands, showing targets by day and red and green lights by night, the red lights to show to the river and the green lights to the roadway when the bridge is closed, and show reversed when the bridge is open.

54. In each operator's house shall be placed a telephone, complete, with receiver, transmitter, battery and magneto bell, connected by cable beneath the river. Upon the operators' house in which are placed the two controllers shall be placed a one hundred and ten (110) pound Meneeley bell (Troy, N. Y.), to be properly hung, with cord leading to suitable points inside of the operator's house.

#### *Roadway Paving.*

55. Where shown on plans, the roadway floor for the stationary parts of the bridge shall consist of yellow pine block paving, blocks to be seven and one-half (7½) inches long, resting on a floor of yellow pine planking four (4) inches thick, surfaced on one side and to uniform thickness. The planking will be laid at right angles and will be fastened to stringers. The blocks will be laid with close joints and in parallel rows across the roadway. Where not otherwise shown, stationary roadway shall be the same as for movable roadway. The roadway floor of the movable parts of the bridge shall consist of two courses of planking; the first course to be surfaced on one side to a uniform thickness of three and one-half (3½) inches and to be from six (6) to ten (10) inches wide, laid three-quarters (¾) inch apart, at right angles to and well fastened to the stringers. The top course shall be white oak surfaced on one side to uniform thickness of two and three-quarter (2¾) inches, laid at right angles to the line of the bridge and well spiked to the lower course. The oak plank to be from six (6) to ten (10) inches wide, well seasoned and dry.

and free from knots and other defects. All pine must be long leaf southern yellow heart pine, good quality, sound, free from sap, wind shakes, and large or loose knots. Each plank must be fastened to each stringer by two three and one-half ( $3\frac{1}{2}$ ) inches by three-eighths ( $\frac{3}{8}$ ) inch railroad spikes driven from under side of floor.

#### *Sidewalks.*

56. The sidewalk planking shall consist of good quality pine, as above specified, surfaced on the upper side and edges. Planks to be six (6) inches wide, to be laid at right angles to the bridge, with one-quarter ( $\frac{1}{4}$ ) inch open joints. Planks are to be well spiked to wood strips on stringers.

#### *Wheel Guard.*

57. The wheel guard shown on plans to run the entire length of bridge, including approaches, and surfaced one side and one edge to true size.

#### *Patterns.*

58. All patterns for castings shall be the property of the Sanitary District, and shall be delivered by the contractor where directed by the Engineer.

#### *Extra Inspections.*

59. Should the preparation of the material for this structure be widely distributed, or should unnecessary delays in getting out the same, or delay in the required date of final completion occur, the cost of extra inspection shall be borne by the contractor, the Engineer to be the sole judge of what is to be deemed extra inspection.

#### *Maintenance.*

60. The contractor will be required to maintain the superstructure work for a period of twelve (12) months after the same shall have been completed to the satisfaction of the Engineer, keeping the same in perfect repair during that time against all damages of wear and tear due to imperfect material or faulty workmanship which may be discovered under the legitimate use or operation of the bridge. He shall be required to execute a bond in the sum of \$15,000 for the faithful performance of this before receiving a final payment of his contract.

#### *Duplicate Castings.*

61. The contractor must furnish such duplicates of the finished castings as directed by the Engineer, at the price per pound named in the bids.

#### *Painting.*

62. All of the structural metal work before leaving the shop shall receive one good coat of paint of quality hereinafter specified, well rubbed in. In the riveted work, the surfaces coming in contact shall be painted with two coats of paint as above. Bottom of bed plates, bearing plates and any parts not accessible for painting after

erection shall have two coats of paint as above. After the structures are erected, the metal work shall be thoroughly and evenly painted with two additional coats of paint of quality as herein specified. The paint must be delivered at the bridge site at least ten (10) days in advance of the time it is to be used, and samples must be submitted to the Engineer for approval as to quality and color. No painting will be permitted to be done in wet or freezing weather. In case any paint is washed or scraped off before becoming dry, the work must be repainted to the satisfaction of the Engineer, and at the contractor's expense. All turned or planed surfaces must receive a coat of white lead and tallow before leaving the works.

#### *Paint.*

63. The paint to be used as first or shop coat shall be the highest grade of red oxide of iron paint, the pigment to contain at least forty (40) per cent sesqui-oxide of iron and be mixed with best boiled linseed oil and turpentine japan dryer. No benzine will be allowed in the paint.

64. The paint for the second and third coats shall be the same as the first coat with the addition of one (1) ounce of best Germantown lamp black to each gallon of paint for the second coat and one and one-half ( $1\frac{1}{2}$ ) ounces of the same lamp black to each gallon of paint for the third coat, to be thoroughly stirred in by machinery.

65. A written statement and guarantee of the composition of the paint shall be given the Engineer by the manufacturer furnishing the paint.

#### *Camber.*

66. The trusses of the bridge shall be so constructed as to give a slight camber to the floor, under the full live load.

#### *Name Plates.*

66. Two name plates, 16 inches by 26 inches, shall be furnished by the contractor. These plates shall bear the following inscription, "Invented by William Scherzer, C. E. Patented December 26th, 1893. Designed by the Scherzer Rolling Lift Bridge Co., Chicago, Ill. These plates shall also properly mention all additional patents owned and designated by the Scherzer Rolling Lift Bridge Company at the time of preparing the plates. Two additional plates shall be inscribed as directed by the Engineer. All plates to be placed on the structure as directed by the Engineer.

#### *Shipping.*

68. All parts shall be carefully loaded so as to avoid injury in transportation, and shall be at contractor's risk until erected and ready for traffic. All screw ends shall be wrapped with twine before shipment. All pins and small parts must be securely boxed and the boxes plainly marked. The weights of large pieces must be



marked on them. The invoices shall state the contents of each box and the weight and description of each piece that is not boxed, and three copies of each invoice shall be furnished the Sanitary District of Chicago. The above weights shall be actual, not estimated weights.

#### *Erection.*

69. The contractor shall furnish all staging and false work, shall erect and adjust all the metal work, except metal work in substructure as herein specified, shall furnish and put in place all floor timbers and timber guards. The contractor shall assume all risks of accidents to men or material prior to the acceptance of the finished structure. The contractor must also remove all false work, piling and other obstructions, or unsightly material produced by his operations. The contractor shall furnish all templates for setting metal work in substructure and in proper time for erection of such work.

#### *Final Acceptance.*

70. Any material or workmanship which does not satisfy the requirements of these specifications may be rejected by the Engineer at any time before the final acceptance of the work, and the contractor shall make good all deficiencies at his own cost. The fact that the authorized inspectors have inspected said material or workmanship shall not make the Sanitary District liable for extra cost above that specified in the contract for replacing the same with material or workmanship accepted by the Engineer on final acceptance.

#### *General Conditions.*

71. The drawings furnished form a part of these specifications, and any work shown therein shall be executed the same as if mentioned herein. The work is to be made complete and to the satisfaction of the Engineer, notwithstanding any omissions in plans or specifications.

#### *Changes in Plans.*

72. The quantity of work and material figured from the plans is approximate, and the Sanitary District reserves the right to make any changes in the plans or specifications which may be deemed necessary either before or after beginning the construction thereof; provided, that if alterations are made, the general character of the work as a whole is not changed thereby. If such alterations diminish the quantity of work to be done, they shall not constitute a claim for damages nor for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract. Notice of change of plan must be given to the contractor in writing, and it is expressly agreed that no alterations or additions or extra work are to be paid for, unless so directed in writing.

#### *Extra Work.*

73. All claims for extra labor or material furnished by the contractor, or for damages from any cause whatever, must be reported to the Engineer at the time such labor or material is furnished or such damages occur, and they must also be presented to him in writing at the end of the month; provided that nothing shall be paid for as extra work that can be classified under any of the heads upon which prices are fixed by this contract. Whenever work is required to be done, which is not now contemplated or covered by the prices hereinafter given, the Committee on Engineering shall fix such prices for the work as they shall consider just and equitable, and the contractor shall abide by such prices, provided he enters upon such work with a full knowledge of the prices so fixed by said Committee; but if the contractor declines executing said work at the prices fixed by said Committee, then the Sanitary District may enter into contract with any person or persons for its execution the same as if this contract had never existed; and if extra work or work not provided for in this contract is performed by the contractor before prices have been fixed for such work, then the Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and said contractor shall accept such prices in full satisfaction of all the demands against the Sanitary District for said extra work; provided that, if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, than the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same the actual cost of the work with fifteen (15) per cent. added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

#### *Responsibility of Contractor.*

74. It is further agreed that in all cases of question or dispute arising or growing out of this contract in any way regarding the cost or value of extras, variations, allowances, deductions, or the amount of damages in any manner growing out of the violation of this contract, the decision of the Engineer shall be final and binding on both parties hereto. All work provided for in this contract is to be done under the direction and supervision of the Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without extra charge therefor, to enable the Engineer to properly give lines and grades and measure the work from time to time.

75. All materials of whatever kind to be used in the work will be subject to the inspection and

approval of the Engineer. All unsuitable or rejected materials must be removed from the premises at once by the contractor.

76. All work shall be subject to constant inspection before acceptance. Any unfaithful or imperfect work that may be discovered before its final acceptance shall be corrected immediately, and any unsatisfactory material used in the work shall be rejected and removed on the requirement of the Engineer, notwithstanding they may have been overlooked by the inspector and estimated. The inspection of any work shall not relieve the contractor of any of his obligations to perform sound work, as herein specified, and all work which, during its progress and before its final acceptance, may become damaged from any cause, shall be removed and replaced by good and satisfactory work.

77. The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to sublet all or any part of it; it being distinctly understood and agreed that the subletting of the work covered by this contract, or any part thereof, shall, after thirty (30) days' notice, work a forfeiture of the contract at the option of the Sanitary District.

78. During all periods of construction the contractor shall uninterruptedly keep open for navigation a channel of sufficient width in the river to permit continuous traffic on the same.

78A. In the event of any action at law or in equity being taken by any person, persons, or corporation, which would restrain the Sanitary District from giving or the contractor from securing possession of the site of the bridge or in any way delay the execution of this contract, then in that case the contractor shall not hold the Sanitary District liable for any loss or damage by him sustained on account of such interference, and the contractor shall be accorded an extension of the period within which the work was to have been completed by the terms of the contract equal to the time lost by reason of such restraint.

79. The contractor shall conform to all the ordinances of the City of Chicago and the regulations imposed by the United States government in any manner affecting this work, and he will release the Sanitary District of Chicago from all responsibility for loss or damage occasioned by delays or inconveniences due to the navigation of the river by vessels of any sort or description or for other causes not now foreseen. He shall also be responsible for and make good all damages to adjoining property which may be occasioned by him or his work in the execution of his contract.

80. The contractor will not be allowed to as-

sign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case the contractor fails to comply with the provisions of this contract as to progress and character of work, he shall be duly notified in writing, and thirty (30) days after the giving of said notice the Sanitary District may declare this contract forfeited, if there is a substantial failure to comply with its provisions.

#### *Tools.*

81. The contractor is to furnish all the tools of every description, including pumps, cars and tracks, boats, barges and tugs necessary to the full and complete carrying out of this contract, and on completion of the work is to remove all tools, building and materials of all kind from the sight of the bridge.

#### *Precautions.*

82. Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, shall be taken by the contractor.

#### *Workmen.*

83. The contractor should employ competent foremen and laborers, and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work will be employed where special skill is required, and in the employment of men preference shall be given to union laborers. It is especially understood and agreed that eight (8) hours shall constitute a day's work, and that no workman shall be employed or required to work more than eight (8) hours out of any twenty-four (24) hours, and no work in excess of that time shall be allowed. In the event of any violation of the above eight (8) hour provision, it is hereby agreed that the said District shall, and that it is duly authorized to retain from any money due, or to become due, at any time from it to the contractor, as liquidated damages, the sum of five dollars (\$5) per hour for each hour that any employee shall be required to work in excess of eight (8) hours per day, pursuant to the terms and conditions of the ordinance adopted June 23rd, 1897, attached hereto.

#### *Patents.*

84. It is further agreed that the contractor shall indemnify, keep and save harmless said Sanitary District from all liabilities, judgments, costs, damages and expenses which may in anywise come against said Sanitary District, or which may result on account of any infringement of any patent by means of the use of any materials, machinery, device or apparatus used in the performance of this contract, or of designs furnished by the contractor and accepted

by the Sanitary District, except the patents on a bridge design of the Scherzer type controlled by Frank M. Montgomery & Co., and in the event of any claim or suit or action at law or equity of any kind whatsoever being made or brought against said Sanitary District, then the Sanitary District shall have the right to retain a sufficient amount of money in the same manner and upon the same conditions as hereinafter in the next following clause in this contract provided.

#### *Damages.*

85. If any damage shall be done by the contractor or by any person or persons in his employ to the owner or occupants of land, or any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, the Engineer shall have the right to estimate the amount of said damage, and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for said damages shall be deducted from the money due said contractor, under this contract. Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself, or his employees, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for, or on account of, any such injuries, or such damage received or sustained by any person or persons, by or from said contractor, servants, agents or employees, in the execution of said work; or by or in consequence of any negligence in guarding the same; or by or on account of any omission or act of said contractor, his agents or employees; and the said contractor further agrees that so much of the money due to him under and by virtue of this contract as shall be considered necessary by the Board of Trustees of the Sanitary District may be retained by the said Sanitary District until such suit or claim for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

#### *Time.*

86. The contractor agrees to begin the work covered by this contract within fifteen (15) days after said contract shall have been executed, and to prosecute the building of the structure herein provided for so as to complete the same on or before the first day of April, 1902.

#### *Penalty.*

87. The contractor hereby agrees to forfeit as liquidated damages for any non-compliance with, or non-fulfillment of the provisions of this contract within the time specified fifty dollars (\$50) per day for each day beyond April 1, 1902, within which the work hereby provided is to be completed, time being an essential part of this contract.

88. In case the substructure is not completed and ready to receive the superstructure by December 1, 1901, an extension of time will be granted for the completion of the superstructure equivalent to the time required beyond December 1, 1901, for the completion of the substructure.

#### *Prices.*

89. In consideration of the said work being carried on and completed in the time and manner as hereinbefore specified, the said Sanitary District agrees to pay to the said contractor for the superstructure the following amounts, and the said contractor agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit:

(a) For the superstructure, furnished and erected complete, including operating machinery, locks, signals, electrical equipment, pumps with motors, houses, etc., for operating this bridge, as specified, and to furnish all iron and steel in the substructure at the site of the bridge, except the steel lining to counter-weight pits, the sum of one hundred seven thousand (\$107,000.00) dollars.

(b) For furnishing the steel lining for counter-weight pits, if required, as shown on drawings, the sum of four (.04) cents per pound.

(c) For extra medium or soft steel, erected in place, the sum of four (.04) cents per pound.

(d) For extra iron castings, erected in place, the sum of three (.03) cents per pound.

(e) For extra cast steel in track plates, erected in place, the sum of ten (.10) cents per pound.

(f) For extra steel castings and all other steel for machinery, erected in place, the sum of ten (.10) cents per pound.

(g) For extra phosphor bronze, erected in place, the sum of forty (.40) cents per pound.

(h) For extra counter-weight block castings, erected in place, the sum of one and one-half (1½) cents per pound.

(i) For extra pine or oak, put in place, as specified, per one thousand (1,000) feet, B. M., the sum of fifty (\$50.00) dollars.

The prices proposed must include all royalties for patents, or patented material or appliances used in the construction of the work described in the specifications and agreements; and before final payment is made, the contractor shall furnish a satisfactory guarantee against all claims; provided, however, that this does not apply to the patented design of the bridge of the Scherzer Rolling Lift Bridge Company, the right to use the same having been purchased by the Sanitary District.

#### *Time and Manner of Payment.*

90. It is agreed by the party of the first part

that on or before the 10th day of each month during the progress of the work and subject to the provisions hereinbefore specified under the head of "time," payment will be made to the said party of the second part to the amount of sixty (60) per cent. of the value, as estimated by the Engineer, of the structural metal delivered under this contract, upon written certificate from the Engineer that such amount of material has been delivered during that period at the site of the bridge; forty (40) per cent. being reserved until the completion and acceptance of the work by the party of the first part. The said forty (40) per cent. to be paid upon the written certificate of the Engineer within thirty days after said acceptance.

#### *Certificate.*

91. Upon the completion of the superstructure in accordance with the specifications and contract, to the full satisfaction of the Engineer, and upon the inspection of same and the issuance of the final certificate by the Engineer, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to the said party of the second part by the said certificate of the said Engineer.

#### *Failure to Complete.*

It is further agreed by the said party of the second part that, if the work to be done under this contract on the superstructure shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or if at any time the Engineer shall be of the opinion and shall so certify in writing to the said party of the first part that said work, or any part thereof, is unnecessarily and unreasonably delayed, or that the contractor is willfully and persistently violating any of the conditions or covenants of this contract, or is not fulfilling said contract in good faith, the said party of the first part shall have the power to notify the said contractor to discontinue all work, or any part thereof, as may be designated by the said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams and to obtain such machinery, implements and tools and to purchase such material as the said Engineer may deem necessary to complete the work herein described, or any part thereof. And, in so doing, said Engineer may use such tools, implements and materials as may be found upon the line of work. The cost of doing such work by the said Engineer shall be charged to the said contractor, and the expense so charged shall be deducted and paid by the said party of the first part out of such moneys as may be due, or may at any time thereafter become due to said contractor, under and by virtue of this contract, or any part thereof, so far as the same shall suffice there-

for; and the balance, if any, shall be paid by said contractor on demand. Should there be a failure by the second party to deliver said material of the character and strength herein provided for at the time herein specified, or if, after delivery of same as herein provided, said contractor should fail financially, either before or after having been paid the sixty (60) per cent. of the contract price as hereinbefore provided, and be unable to carry out said contract and complete said work, then, in that case, the said party of the first part shall have the power to complete said work by contract or otherwise, at its discretion, and charge up the cost of so completing the said work to said contractor. Should the amount remaining unpaid of the contract price not suffice therefor then said contractor and his bondsmen shall be held liable for the deficiency. If at any time during the progress of said work the said contractor shall fail or neglect to pay for labor performed or material furnished upon said work for ten (10) days after it shall have become due, then the party of the first part shall have power to pay for such labor or for materials, tools, machinery, appliances, fuel, provisions or supplies of any sort or kind used or consumed in, upon or on account of the work covered by this contract; the party of the first part shall have the power to pay for such labor or materials, machinery, appliances, fuel, provisions or supplies of whatsoever sort or kind, out of the money that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor. In any such case the party of the first part is hereby authorized and empowered by the party of the second part to ascertain by its Engineer the amounts due or owing from said contractor to any laborer or laborers, or to any person or persons, for materials, tools, machinery appliances, fuel, provisions or supplies of any sort or kind consumed upon, in or on account of the work covered by this contract in such manner and upon such proofs as the said Engineer may deem sufficient.

#### *Contractor's Bond.*

92. The contractor shall furnish bond in the sum of thirty-five thousand (\$35,000) dollars for the superstructure of this bridge, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned upon the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of the said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten (10) days notice thereof in writing, require said contractor to furnish a new and additional bond in place of the bond so having become insufficient or worthless.

#### *Final Payment.*

94. The said party of the second part further

agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until all of the stipulations hereinbefore mentioned are complied with, and the said Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work, should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

IN WITNESS WHEREOF, On the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set its hand and seal.

THE SANITARY DISTRICT OF CHICAGO,

[SEAL]

By ALEX J. JONES,  
*President.*

Attest:

A. R. PORTER,  
*Clerk.*

AMERICAN BRIDGE COMPANY OF NEW YORK,

[SEAL]

By JOSHUA A. HATFIELD,

Attest:

H. SCHUMMAKER,  
*Secretary.*

Approved:

ISHAM RANDOLPH,  
*Chief Engineer.*

Approved:

JAMES TODD,  
*Attorney.*

CLERK DIRECTED TO RETURN CHECKS  
DEPOSITED WITH BIDS FOR THE EREC-  
TION OF SUB AND SUPERSTRUCTURES  
OF RANDOLPH STREET BRIDGE.

In connection with the report of the  
Committee on Finance on the approval of  
bonds for the erection of the Randolph

Street Bridge, Mr. Carter, seconded by Mr. Legner, moved that the Clerk be authorized and directed to return all checks deposited by the respective bidders upon the sub and superstructures of the bridge at Randolph Street as soon as the contracts for said bridge have been executed.

The motion prevailed unanimously and it was so ordered.

#### REPORT IN REFERENCE TO LEASE OF ACREAGE LANDS TO MODESTO LENZI.

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee, accompanied by a form of lease to Modesto Lenzi for certain acreage lands, duly executed by said party, and by the President and Clerk of the District.

The report is as follows:

CHICAGO, July 10, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance reports herewith a form of ground lease to be executed by the District with the party hereinafter mentioned, for the use of certain lands owned by the District along the banks of the Main Channel. The lands rented are to be used for farming and grazing purposes by Modesto Lenzi, of Gary, Cook County, Illinois, at an annual rental of two hundred and eighty (\$280.00) dollars, payable in advance, which sum has been received from the said Lenzi by the Clerk of the District. Said land is described as follows:

A strip of land containing eighty (80) acres, more or less, in Sections twenty-two (22), twenty-three (23), twenty-seven (27), twenty-eight (28), in Township thirty-eight (38) North, Range twelve (12), East of the Third Principal Meridian, otherwise described as a strip of land lying between a line one hundred and fifty (150) feet distant from, measured at right angles in a southerly direction, and parallel to the south bank of the new diversion of the Desplaines River and a line two hundred (200) feet distant from, measured at right angles in a northerly direction and parallel to, the north bank of the Main Drainage Channel of the Sanitary District of Chicago, in Contract Sections (B) and (C) of

said Sanitary District of Chicago, situated in the County of Cook and State of Illinois.

That said lease is in conformity with the form of lease heretofore adopted by the Board of Trustees for use in cases as above.

The Committee therefore recommends that the President and Clerk of the District be authorized and directed to execute on behalf of the District said lease to the said party as above set forth, the said party having complied with the conditions precedent, and having executed the same on his part.

Respectfully submitted,

(Signed) Z. R. CARTER,  
*Chairman.*

WM. H. BAKER,

FRANK X. CLOIDT,

WM. LEGNER.

ALEX. J. JONES,

J. C. BRADEN.

THOMAS A. SMYTH,

*Committee on Finance.*

On motion of Mr. Carter, seconded by Mr. Baker, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Jones, Legner and Smyth—Seven,

*Nays*—None.

The following is the form of lease to Modesto Lenzi:

THIS INDENTURE, Made this 1st day of May in the year of our Lord one thousand nine hundred and one, between The Sanitary District of Chicago, a corporation organized and existing under the laws of the State of Illinois, party of the first part, and Modesto Lenzi, of Gary, Cook County, Illinois, party of the second part:

WITNESSETH, That the said party of the first part for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, his executors, administrators and assigns, has demised and leased to the said party of the second part all those premises situate, lying and being in the County of Cook and State of Illinois, known and described as follows, to-wit:

A strip of land containing eighty (80) acres more or less in Sections twenty-two (22), twenty-three (23), twenty-seven (27), twenty-eight (28) in Township thirty-eight (38) north, Range twelve (12), east of the Third Principal Meridian, otherwise described as a strip of land lying between a line one hundred and fifty (150) feet distant from, measured at right angles in a southerly direction and parallel to, the south bank of the new diversion of the Desplaines River, and a line two hundred (200) feet distant from, measured at right angles in a northerly direction and parallel to, the north bank of the Main Drainage Channel of the Sanitary District of Chicago, in Contract Sections "B" and "C" of said Sanitary District of Chicago, excepting therefrom the Main Drainage Channel of the Sanitary District of Chicago and a strip of land two hundred (200) feet wide on each side of said Channel and adjacent thereto.

To have and to hold the above described premises, with the appurtenances, unto the said party of the second part, his executors, administrators and assigns, from the thirteenth (13th) day of April, in the year of our Lord One Thousand Nine Hundred and One, for and during and until April twelfth (12th), A. D. One Thousand Nine Hundred and Two.

It is further expressly covenanted and agreed, however, by and between the parties aforesaid, that the said party of the first part, its successors or assigns, reserves to itself the right at any time, at its election, to declare said lease terminated, and either with or without process of law, and using such force as may be necessary in so doing to re-enter said demised premises, and again re-possess and enjoy said premises as in its first and former state. Said party of the first part hereby covenants and agrees in case it does terminate this lease as above provided, and for no cause given by the said party of the second part, to pay to said party of the second part such sum of money as shall be appraised as damages caused by such termination of this lease, said damages to be appraised by a board of three arbitrators, one to be appointed by the party of the first part, and one by the party of the second part, and said two so appointed to choose a third one. The award of said board of arbitrators to be final and binding upon both parties to this lease.

And the said party of the second part in consideration of the leasing of the premises aforesaid, by the said party of the first part to the said party of the second part, does covenant and agree with the said party of the first part, its successors and assigns, to pay to the said party of the first part as rent for the said

demised premises, at the office of said first part, in Chicago, the sum of two hundred and eighty dollars (\$280.00) per annum, payable in advance. The said first party further reserves the right to go upon said property at any time for surveying or for any other corporate uses which said party of the first part may desire to subject said property to. It is further agreed by the said party of the second part that if at the time of making the survey as provided for herein it is discovered that there is more tillable land in said tract than is provided for in the description of the premises herein leased, then upon due notice thereof the said party of the second part shall pay to the said first party the sum of three and fifty one-hundredths dollars per acre in excess of that herein described.

It is further covenanted and agreed by the said party of the second part that he will pay, or cause to be paid, all water rates and all taxes and assessments that may be laid, charged or assessed on said demised premises, pending the existence of this lease, or if at any time after any tax, assessment or water rate shall have become due or payable, the party of the second part, or his legal representatives, shall neglect to pay such water rates, tax or assessment, it may be lawful for the party of the first part to pay the same at any time thereafter, and the amount of any and all such payments so made by the party of the first part shall be deemed and taken and are hereby declared to be so much additional and further rent for the above demised premises due from and payable by the party of the second part; and may be collected in the same manner by distress or otherwise, as is hereinafter provided for the collection of other rents to grow due thereon.

And it is expressly understood and agreed by the said party of the second part hereto, for his heirs, executors, administrators and assigns, that the whole amount of rent reserved and agreed to be paid for said above demised premises, and each and every installment thereof, shall be and is hereby declared to be a valid and first lien upon any and all buildings and improvements on said premises, or that may at any time be erected, placed or put on said premises by said party of the second part, his heirs, executors and administrators or assigns, and upon his or their interests in this lease and the premises hereby demised; and that whenever and as often as any installment of rent or any other amount above declared to be deemed and taken as rent shall become due and remain unpaid for one day after the same becomes due and payable, said party of the first part, its successors, agent, attorney, or assigns, may sell at public auction, to the highest bidder for cash, after having first given ten days' notice of the time

and place of such sale, in some newspaper published in Cook County, all the buildings and improvements on said premises, and all the right, title and interest acquired by said party of the second part under this lease to the premises herein described, and as the attorney of said party of the second part—hereby irrevocably constituted—may make to the purchaser or purchasers thereof a suitable and proper transfer, bill of sale, or deed of the same, and out of the proceeds arising from such sale, after first paying all costs and expenses of such sale, including commission and attorneys' fees, retain to said first party the whole amount due on said lease up to the date of such sale, rendering the surplus, if any, to said party of the second part, his heirs, executors, administrators, agent, attorney or assigns, which sale shall be a perpetual bar to and against all rights and equities of said party of the second part, his heirs and assigns, in and to the property sold.

It is expressly covenanted and agreed by said party of the second part, his executors, administrators and assigns, that he will use said above described premises for farming purposes only, and that he will not use said premises, or suffer them to be used, for the sale of wines, ales, liquors or any other intoxicating beverages whatsoever; or for the purpose of gambling in any manner whatsoever.

And the party of the second part further covenants with the party of the first part that he will keep said demised premises in a clean and wholesome condition, in accordance with the ordinances and regulations of the County of Cook and directions of the health officers, and that at the expiration of the time in this lease mentioned, he will yield up said premises to the party of the first part in as good condition as when the same were entered upon by the party of the second part, loss by fire or inevitable accident and ordinary wear excepted.

It is further agreed by the party of the second part that neither he nor his legal representatives will underlet said premises, or any part thereof, or assign this lease without the written assent of said party of the first part first had and obtained thereto, nor use, or suffer them to be used, for any other purpose than that above mentioned.

It is expressly understood and agreed by and between the parties aforesaid that if the rent above reserved, or any part thereof, shall be behind or unpaid on the day of payment whereon it ought to be paid, as aforesaid, or if default shall be made in any of the covenants herein contained to be kept by the party of the second part, his executors, administrators or assigns, it shall be lawful for the party of the first part, or its successors, agent,

attorney or assigns, at its election, to declare said term ended, and into the said demised premises, or any part thereof, either with or without process of law, to re-enter, and the party of the second part, or any other person or persons, occupying, in or upon the same, to expel, remove and put out, using such force as may be necessary in so doing, and the said premises again to re-possess and enjoy, as of its first and former estate, and to distrain for any rent that may be due thereon upon any property belonging to the party of the second part, whether the same be exempt from execution and distress by law or not; and the party of the second part in that case hereby waives all legal rights which he now has or may have, to hold or retain any such property under any exemption laws now in force in this state, or in any other way, meaning and intending hereby to give the party of the first part, its successors, agent, attorney or assigns, a valid and first lien upon any and all the goods, chattels, or other property belonging to the party of the second part as security for the payment of said rent, in manner aforesaid, anything hereinbefore contained to the contrary notwithstanding. And if at any time said terms shall be ended at such election of said party of the first part, its successors, agent, attorney or assigns, as aforesaid, or in any other way, the party of the second part does hereby covenant and agree to surrender and deliver up said above described premises and property peaceably, to the said party of the first part, its successors, agent, attorney or assigns, immediately upon the determination of said term as aforesaid; and if he shall remain in possession of the same one day after notice of such default, or after the termination of this lease, in any of the ways above named, he shall be deemed guilty of a forcible detainer of the premises under the statute, and shall be subject to all the conditions and provisions above named, and to eviction and removal, forcibly or otherwise, with or without process of law, as above stated.

And it is further understood and agreed by the said party of the second part that neither the right given in this lease to said party of the first part to collect the rent that may be due under the terms of this lease, by sale or any proceedings under the same shall in any way affect the right of said party of the first part to declare this lease void and the term hereby created ended, as above provided, upon default made by said party of the second part.

And the said party of the second part hereby waives his right to any notice from said party of the first part of its election to declare this lease at an end, under any of its provisions, or any demand for the payment of

rent, or the possession of premises leased herein; but the simple fact of the non-payment of the rent reserved shall constitute a forcible detainer as aforesaid.

The said party of the second part further agrees not to remove any buildings or other improvements from said premises without written consent of said party of the first part, and that the said second party shall pay and discharge all costs and attorneys' fees and expenses that shall arise from enforcing the covenants of this indenture by the party of the first part.

It is further understood and agreed that all the conditions and covenants contained in this lease shall be binding upon the heirs, executors, administrator, successors and assigns of the parties to these presents, respectively.

In witness whereof, the said parties have hereunto set their hands and seals the day and year first above written.

SANITARY DISTRICT OF CHICAGO.

By ALEX. J. JONES,

[SEAL]

President.

Attest:

A. R. PORTER,

Clerk.

[SEAL]

MODESTO LENZI.

Approved:

JAMES TODD,

Attorney.

REPORT IN REFERENCE TO COMPENSATION TO BE PAID THE BOARD OF ENGINEERS OF THE SPECIAL COMMISSION OF EXPERTS.

Mr. Smyth, member of the Committee on Engineering, presented a report from the Committee as follows:

CHICAGO, July 10, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Engineering herewith reports that it has considered the compensation to be paid the Engineers of the Expert Commission recently employed to consider what improvements or changes, if any, should be made in the plans of the Sanitary District for the improvement of the Chicago River, to



allow the necessary flow of water with the least possible interference to navigation practicable, taking into account the present and future needs of the Sanitary District for furnishing the maximum flow of water under the Sanitary District Act, including the volume to be furnished by the Thirty-ninth Street Conduit, including the removal of center pier bridges, building bascule bridges, widening the river, building by-passes, establishment of dock line and lowering the tunnels in the Chicago River, and to make a comprehensive report covering all of the above matters, and presenting a complete plan for all the improvements above mentioned, and advises that it has fixed the compensation for said services at seventy-five hundred dollars.

The Committee therefore recommends that the President and Clerk of the District be authorized and directed to pay to the said Engineers, Lyman E. Cooley, Ambrose V. Powell and Louis P. Friedstedt the sum of seventy-five hundred dollars upon their giving a proper release and receipt in full for all claims for said services against the District.

Respectfully submitted,

(Signed) WM. H. BAKER,  
THOMAS A. SMYTH,  
Z. R. CARTER, .  
FRANK X. CLOIDT,  
WM. LEGNER,  
ALEX. J. JONES,

*Committee on Engineering.*

On motion of Mr. Smyth, seconded by Mr. Cloidt the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Carter, Cloidt, Jones, Legner, and Smyth—Six.

*Nays*—None.

*Excused and not voting*—Mr. Braden—One.

#### REQUISITION.

The Clerk presented the following requisition:

No. 605. From Engineering Department (supplies for the quarter ending September 30, 1901,).....\$497 05

Mr. Braden, seconded by Mr. Carter, moved that the above requisition be allowed.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Jones, Legner and Smyth—Seven.

*Nays*—None.

#### NOTICE OF SUIT FOR ALLEGED DAMAGES.

The Clerk presented the following notice of suit for damages, alleged to have been sustained by reason of overflow of the Des Plaines River:

*To the Trustees of the Sanitary District of Chicago:*

Take notice that the undersigned, American Trust and Savings Bank, as trustee, under two certain deeds of trust executed by the Joliet Limestone Company, one of said trust deeds bearing date the 19th day of June, 1895, and recorded in the Recorder's office of Will County, Illinois, on the 30th day of July, 1895, in Book 314 at page 96, and the other bearing date April 1st, 1898, and recorded in the Recorder's office of Will County, Illinois, on the 2d day of April, 1898, in Book 329 at page 621, and also recorded in the Recorder's office of Cook County, Illinois, on the 2d day of April, 1898, in Book 6264 of Records at page 266, said trust deeds securing the payment of certain bonds of said Joliet Limestone Company, claims damages as such trustee to the amount of twenty thousand dollars (\$20,000 00) to an undivided two-thirds of all that part of the northwest quarter (N. W.  $\frac{1}{4}$ ) of Section thirty-four (34) in Town thirty-six (36) North, and of Range ten (10) east of the Third Principal Meridian, in Will County, Illinois, lying between the west line of the right of way of the Chicago, Santa Fe and California Railway Company, on which its track is now located and operated, and a line parallel with and nine hundred (900) feet east from the west line of said section, except a strip of land about one hundred (100) feet in width running diagonally through said property, containing, to-wit six and thirty-six-hundredths (6.36) acres, acquired and controlled by the said Chicago, Santa Fe and California Railway Company for right of way purposes, which damages are caused by the overflow of the Des Plaines River upon said premises,

caused by the discharge into that river of an increased volume of water by reason of the construction by the Sanitary District of Chicago of embankments, channels and outlets, which increased the flow of water in said river where the same crosses said Section thirty-four (34) and causes the same to overflow and thus flood said above described land, which said embankments, channels and outlets were constructed and are permanently maintained by the said Sanitary District of Chicago.

You are further notified that the undersigned, as such Trustee, intends to bring

suit against the Sanitary District of Chicago to recover said damages.

Dated Chicago, July 5th, 1901.  
THE AMERICAN TRUST & SAVINGS BANK,

By FRANK H. JONES,

*Secretary.*

By unanimous consent, the above notice was ordered printed and placed on file.

ADJOURNMENT.

On motion of Mr. Braden, seconded by Mr. Cloldt, the Board adjourned.

*A. R. Porter.*  
CLERK

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

JULY 24, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Thirty-sixth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Wednesday, July 24, 1901, at 2 o'clock P. M.

The President, Mr. Jones, took the chair,

and the meeting being called to order, there were then

*Present*—Messrs. Baker, Carter, Cloldt, Jones and Smyth—Five members.

*Absent*—Messrs. Braden, Legner, Webb and Wenter—Four members.

**MINUTES.**

On motion of Mr. Cloldt, seconded by Mr. Smyth, the minutes of the regular meeting held July 10, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**PAY ROLLS.**

Engineering Department (Chief Engineer's roll, July, 1901).....	\$2,508 33	
Engineering Department (Div. of Construction roll, July, 1901).....	3,805 21	
Engineering Department (Special Service roll, July, 1901).....	318 80	
		\$ 6,627 34
Clerical Department (Clerk's roll, July, 1901).....		953 33
Law Department (Attorney's roll, July, 1901).....		1,976 65

July 24,]

—7346—

[1901

Treasury Department (Treasurer's roll, July, 1901).....	\$	375 00
General Account (General roll, July, 1901).....	\$	205 00
General Account, (Special roll, July, 1901).....		310 00
General Account, (Trustees' roll, July, 1901).....		2,333 33

2,848 33

Police Department (Marshal's roll, July, 1901).....		1,733 23
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Maintenance Account (Controlling Works, July, 1901).....		550 00
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Total.....	\$	15,043 93
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## CONSTRUCTION ACCOUNT.

Lydon and Drews Company (Main Street Bridge to July 15, 1901).....	\$	1,459 50
Lydon and Drews Company (Pan Handle Temporary Bridge, Sec. O) ..		500 00
Page & Shnable (Ashland Avenue Bridge, July 15, 1901).....		1,433 12
Heldmaier & Nea (Section 17, July 1, 1901).....		1,268 75
Heldmaier & Neu (Section 17, July 23, 1901).....		2,040 55
Heldmaier & Neu (removing Coffe Dam, Sec. 17) ..		191 48
American Bridge Company (waste gates, Sec. 17).....		432 50
American Bridge Company (waste gates, Sec. 17).....		432 50
Pennsylvania Company (Pan Handle Temporary and Permanent Bridge, Sec. O).....		758 29
Chicago Junction Railway Company (Pan Handle Temporary Bridge, Sec. O).....		150 00
Illinois Central Railroad Company (Pan Handle Permanent Bridge, Sec. O).....		181 71
A., T. & S. F. R. R. Co. (Pan Handle Permanent Bridge, Sec. O).....		20 86
C. T. T. R. R. Co. (Pan Handle Permanent Bridge, Sec. O).....		1,434 79
C., R. I. & P. Ry. Co. (C. T. T. R. R. Co.'s Bridge, Chicago River)...		48 66
Meacham & Wright (cement, Controlling Works).....		290 40
Chicago telephone Company (raising wires, Sec. 17).....		150 34
J. C. Dennis, Superintendent (repairing broken tile, Sec. 18) ..		67 10
A. R. Porter, Clerk (water power development, Controlling Works)...		438 94

11,449 99

## CLERICAL DEPARTMENT.

A. Stenhouse & Co. (rubber stamps).....	\$	4 00
Bates Manufacturing Company (repairing numbering machine) .....		5 55

9 55

## LAW DEPARTMENT.

Callahan & Co. (law books).....	\$	38 75
Chicago Law Directory (Directories, 1900-1901) ..		2 00
Samuel L. Hanks (ice, April, May, June, 1901).....		7 50
Thayer & Jackson (stationery).....		6 06
West Publishing Company (law book).....		7 00
Frank J. Palt (examining abstracts).....		40 00

101 31

## POLICE DEPARTMENT.

E. J. Coen (expense).....		21 75
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## GENERAL ACCOUNT.

Arthur R. Reynolds (compiling report, streams examination).....	\$	297 50
John F. Higgins (printing proceedings) ..		341 47
Western Bank Note and Engraving Company (printing).....		14 00
Chicago Telephone Company (toll service).....		49 20
Thomas M. Sullivan (groceries, Steamer Juliet).....		42 81
Robert E. Hills (fittings, Steamer Juliet) ..		11 13
Thomas B. Banner (fittings, Steamer Juliet).....		20 23

776 34

Grand Total.....	\$	27,402 87
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Mr. Carter, seconded by Mr. Smyth, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Carter, Cloidt, Jones and Smyth—Five.

*Nays*—None.

#### MONTHLY REPORT OF THE CLERICAL DEPARTMENT.

The Clerk presented the report of the Clerical Department for the month of June, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report :

CHICAGO, July 24, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith submit the report of the Clerical Department for the month of June, 1901.

The total expenditure of the District for

the month of June, 1901, was \$120,607.86, of which amount the sum of \$102,-877.82 was paid in regular warrants, and the sum of \$17,729.54 by the Treasurer of the District, for which no warrant was required. Of the amount paid by the Treasurer, the sum of \$16,630.69 was for 1900 tax warrants redeemed, and \$1,-098.85 for interest on same.

The total amount expended on account of, and charged to, the Clerical Department was \$957.33, of which amount the sum of \$933.33 was for salaries and the sum of \$24.00 for general office expenses.

The total amount expended for account of, and charged to, the General Account was \$4,964.01, divided as follows:

Rent of offices, June, 1901.....	\$ 458 33
Printing.....	95 58
Advertising.....	117 25
Salaries.....	2,848 33
Telephone line.....	92 50
General expenses.....	1,802 52
Telephone toll service.....	49 55
Total.....	\$ 4,964 01

Of the total Tax Levy Warrants heretofore issued, the following amounts were still outstanding July 1, 1901:

Against the Tax Levy of 1896.....	\$ 10,963 39
Against the Tax Levy of 1899.....	2,258 64
Against the Tax Levy of 1900.....	7,758 32
Total.....	\$ 20,980 35

The following is a tabulated statement of the total expenditures for the month of June, 1901:

Account.	Regular Warrants.	Paid by Treasurer.	Total for Month.
Engineering Department.....	\$ 7,600 21	.....	\$ 7,600 21
Construction Account.....	37,820 67	.....	37,820 67
Clerical Department.....	957 33	.....	957 33
Law Department.....	2,195 56	.....	2,195 56
Land Account.....	40,965 13	.....	40,965 13
Treasury Department.....	375 00	.....	375 00
General Account.....	4,964 01	.....	4,964 01
Police Department.....	1,846 52	.....	1,846 52
Maintenance Account.....	4,511 97	.....	4,511 97
Dock and Land Improvement & Rental Acct.	1,641 42	.....	1,641 42
1900 Tax Warrants redeemed.....	.....	\$16,630 69	16,630 69
Interest on Tax Warrants redeemed.....	.....	1,098 85	1,098 85
Totals .....	\$102,877 82	\$17,729 54	\$ 120,607 36

Respectfully submitted,

(Signed)

A. R. PORTER, *Clerk.*

# MONTHLY REPORT OF THE LAW DEPARTMENT.

The Clerk presented the report of the Law Department for the month of June, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

CHICAGO, July 24, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith submit the report of the Law Department for the month of June, 1901.

The following are the expenses and disbursements:

Salaries.....	\$ 1,976 66
Court costs.....	47 00
Expenses.....	171 90
Land account (purchased in May)	6,955.87
Land account (June) .....	40,965 13
Total. ....	<u>\$60,116 06</u>

In the case of James Davidson vs. The Sanitary of Chicago, an opinion was handed down by Judge Kohlsaat deciding that the defendant was liable for the repairs of the steamer "Juliet," and referred the case to United States Commissioner Mason to ascertain the amount.

The case of Jacob Adler vs. The Sanitary District of Chicago, in the Circuit Court of Will County, was reached for trial and dismissed upon motion of the plaintiff.

In the case of the Canal Commissioners, Appellant, vs. The Sanitary District of Chicago, Appellee, in the Illinois Supreme Court, a decision was rendered holding that the Appellee could not be compelled to operate the Bridgeport Pumping Station in order to maintain the Summit level of the Illinois and Michigan Canal. The Court considered, but did not decide the question as to the liability of the District for damages in case the level was not maintained.

Considerable time has been spent by this department in the preparation of condemnation suits for certain property adjacent to the Chicago River.

In addition to the above cases and proceedings, the preparation of pleadings and

opinions and the regular routine work of the office have occupied the time of the Legal Department.

Respectfully submitted,

(Signed)

JAMES TODD,

Attorney.

# MONTHLY REPORT OF THE ENGINEERING DEPARTMENT.

The Clerk presented the report of the Engineering Department for the month of June, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

CHICAGO, July 15, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith present the report of the Engineering Department for the month of June, 1901, giving the detailed operations of the same.

The value of construction work done was \$63,279.79. Vouchers were issued on this account to the amount of \$57,518.05.

The engineering expenses for the month were \$9,110.46, divided as follows: Salaries, \$6,440.83; supplies, etc., \$2,669.53. The expenses of the Bridgeport Pumping Works were \$3,926.53, divided as follows: Salaries, \$1,593.91; supplies, etc., \$2,332.62. Details of the above figures are given in tabulated statements submitted herewith.

*Chicago River*—The contractor for the widening and deepening of the river worked as follows: Excavated 10,000 cubic yards between the St. Charles Air Line and the Eighteenth Street Bridge; excavated 6,900 cubic yards just north of Twelfth Street; widened the river just south of Eighteenth Street, 20,000 cubic yards; deepened the river just south of Twenty-second Street, 1,071 cubic yards; deepened the river through the Halsted Street draw, 1,870 cubic yards; widened and deepened at the Boal property, 4,000 cubic yards; dock completed at the Boal property, 298 lineal feet, and at the King property, 287 lineal feet. The L. P. Friedstedt Company moved the bridge house at the Eighteenth Street Bridge about 25 feet

to the west. This work was occasioned by the widening of the river at that point.

The Lydon and Drews Company commenced the work of dredging the river to 26 feet on the 21st.

The contractor for the excavation of rock in the South Fork of the river near Thirty-fifth Street drilled and blasted during the entire month. This work will be completed about the end of July.

The work on the C. T. T. R. R. Co.'s bridge near Taylor Street consisted of the following: Riveting, erection of machinery supports, and the installation of machinery proceeded on the west side of the bridge throughout the month. Most of the counterweights on both sides were put in place; track timbers were framed; electric wires and cables all placed, and the carpenter and galvanized iron work on operating houses finished. Painting on the west side of the superstructure was begun on the 22d.

The contractor for the Canal Street Bridge substructure finished the removal of the old substructure, the excavation was continued, piles were driven for coffer dam and sheet piling driven. At the end of the month the back line and a few piles on the side lines of the north coffer dam had been driven and in the south coffer dam, the back line and the two side lines of piles and sheeting had been completed.

The work on the Main Street Bridge substructure consisted of the following: excavation was carried on; piles were driven in coffer dam; sheet piling was driven and the building of the tunnel continued. At the end of the month, all of the timber work in the south coffer dam was put in place and one horizontal system of bracing installed, but the coffer dam itself was not quite completed as it had not at that time been filled to the water surface with clay. No work was done towards building the coffer dam on the north side of the river, as the new shaft and tunnel on that side was not completed. The contractor commenced laying brick in the shaft on the 4th, but was stopped on the 5th on account of encountering a thick stratum of quicksand. The work was delayed until a steel shaft could be obtained. As the work developed, it was found necessary to place 42 Hneal feet of this shaft. After this was put in place the work proceeded

rapidly, all of it being through very hard pan.

The contractors for the Ashland Avenue Bridge finished the concrete work in the south abutment on the 14th and the grading of the approach to the abutment on the 28th, at which time their plant was removed to the north side of the river, preparatory to the building of the north piers and abutments.

*Section "O"*—The contractor for the removal of the temporary trestles continued work up to the 14th, but nothing was done from that time to the end of the month. A portion of the west trestle is still to be moved. The Union Switch and Signal Company continued work during the whole month on changes in interlocking system incident to the occupation of the new bridges.

*Section "K"*—The work of providing for a spur track on this section was entirely completed on the 21st.

*Section 15*—Work was resumed on the water power plant at the Controlling Works on the 5th. The placing and setting of wheels, the laying of concrete connected with same, and the building and sinking of a coffer dam was continued to the end of the month.

*Section 17*—The dredge continued excavating in the basin between Ruby Street and Dam No. 1 to the 25th, when all excavation between the two points was completed except the coffer dam north of Lock No. 5. On the 26th and 27th the dredge was dismantled preparatory to the resumption of excavation north of Ruby Street. On the 28th the dredge was taken under Ruby Street Bridge and refitting and repairing of same was continued to the end of the month. The tug has been engaged on force account since the 26th excavating material under Ruby Street Bridge.

*Section 18*—The repair of the Lafayette Street sewer at its entrance to the river was begun on the 24th and completed at the end of the month.

*Bridgeport Pumping Works*—One battery of boilers and two engines were operated during the whole month keeping the water up to +2.4 C. D. with a total coal consumption of 891 tons. At 11 o'clock P. M. on June 30th, the pumps were turned over

to the Illinois and Michigan Canal Board, Mr. John P. Jones, Chief Engineer, taking charge of the plant as its representative.

In the Drafting Department the following drawings, etc., were made:

Profile of Continental Waterway, fifty feet scale plats, from Twelfth Street to Lake Street along Chicago River, to be used for right of way purposes; plat showing property to be leased to the Atlas Stone Company; plat showing areas north and south of Main Channel between Western Avenue and Robey Street, and a map showing the new location of the Ashland Avenue Bridge, Chicago River.

The specifications for the Harrison and State Street Bridges were prepared and printed, and, with plans, were issued to

bidders. The Polk Street Bridge plans were received and the work of checking begun. A portion of the shop plans for the Main Street Bridge have been received and have been checked and approved. Plans for the Eighteenth Street Bridge are still unsatisfactory and have been returned to the Frank M. Montgomery Company for changes.

Besides the work reported above, the engineering corps were principally engaged in taking flow measurements and in computing current and final estimates.

I estimate that the expenses of this Department for July will be \$100,000.00.

Respectfully submitted,

(Signed)

ISHAM RANDOLPH,  
*Chief Engineer.*

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—QUANTITIES.

*Amount Done During June, 1901.*

DESIGNATION.	Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Masonry and Concrete. Cu. Yds.	Piles. Lin. Ft.
Chicago River, dredging, etc.....	43,841	300	.....	.....
Section 17.....	5,000	.....	.....	.....
Canal Street Bridge, Chicago River.....	11,000	.....	.....	3,000
Main Street Bridge, Chicago River.....	1,200	.....	.....	4,400
Ashland Avenue Bridge, Chicago River.....	1,300	.....	966	.....
Totals.....	62,341	300	966	7,400



SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—VALUES.  
Amount Earned During June, 1901.

DESIGNATION.	CHICAGO RIVER.		MAIN CHANNEL.		Controlling Works.	Joliet Project.	Totals.
	Dredging, Docking, Etc.	Bridges.	Temporary Bridges.	Permanent Bridges.			
Chicago River, dredging, docking, etc.	\$24,341 43						\$ 24,341 43
Section O.....			\$ 3,069 22				3,069 22
Controlling Works.....					\$ 370 58		370 58
Section 17.....						\$ 1,450 00	1,450 00
C. T. R. R. Co.'s Bridge, Chicago River.....		\$ 48 66					48 66
State Street Bridge, Chicago River.....		6,000 00					6,000 00
Randolph Street Bridge, Chicago River.....		6,000 00					6,000 00
Canal Street Bridge, Chicago River.....		8,146 00					8,146 00
Main Street Bridge, Chicago River.....		6,238 00					6,238 00
Ashland Avenue Bridge, Chicago River.....		6,082 42					6,082 42
Eight-track Bridge, Main Channel, Section O.....				\$ 1,545 48			1,545 48
Totals.....	\$24,341 43	\$32,508 08	\$ 3,069 22	\$ 1,545 48	\$ 370 58	\$ 1,450 00	\$ 68,279 79

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.  
CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF JUNE, 1901.

CLASSIFICATION.	ENGINEERING EXPENSES			Construc- tion.	BRIDGEPORT PUMPS		
	Salaries.	Supplies, Etc.	Totals.		Salaries.	Supplies, Etc.	Total.
Maps and Plans for General Use.....	\$ 2,250	\$ 40 11	\$ 312 61	.....	.....	.....	.....
Chicago River Surveys.....	.....	1 00	1 00	.....	.....	.....	.....
Right of Way.....	55 07	84	55 91	.....	.....	.....	.....
Hydraulic Measurements.....	577 48	76 00	653 08	.....	.....	.....	.....
Mortar, Sand and Cement Tests.....	218 75	.....	218 75	.....	.....	.....	.....
Photographs of Works.....	.....	30 25	30 25	.....	.....	.....	.....
Chicago River Expert Commission.....	.....	202 64	202 64	.....	.....	.....	.....
Chicago River Dredging, Docking, By-passes, etc.....	1,533 58	104 40	1,637 98	.....	.....	.....	.....
State Street Bridge, Chicago River.....	100 67	64 59	165 26	\$21,309 38	.....	.....	.....
Randolph Street Bridge, Chicago River.....	87 33	6 80	94 13	6,000 00	.....	.....	.....
Harrison Street Bridge, Chicago River.....	100 67	84 60	185 27	.....	.....	.....	.....
Folk Street Bridge, Chicago River.....	47 33	.....	47 33	.....	.....	.....	.....
C. T. R. Co.'s Bridge, Chicago River.....	361 75	110 00	471 75	48 66	.....	.....	.....
Eighteenth Street Bridge, Chicago River.....	34 00	.....	34 00	.....	.....	.....	.....
Canal Street Bridge, Chicago River.....	435 26	38 56	473 80	7,127 75	.....	.....	.....
Main Street Bridge, Chicago River.....	391 50	46 01	437 51	5,447 75	.....	.....	.....
Ashland Avenue Bridge, Chicago River.....	530 25	64 01	594 26	5,325 48	.....	.....	.....
Main Channel and River Diversion, Etc., etc.....	721 59	14 72	736 31	.....	.....	.....	.....
Southwest Boulevard Bridge, Main Channel, Section O.....	36 25	.....	36 25	3,069 22	.....	.....	.....
Panhandle Temporary Bridges, Main Channel, Section O.....	195 00	1,743 71	1,938 71	1,545 48	.....	.....	.....
Panhandle Permanent Bridge, Main Channel, Section O.....	722 31	51 35	773 66	1,639 33	.....	.....	.....
Disposal Works and Joliet Project.....	.....	.....	.....	.....	\$1,593 91	\$2,332 62	\$ 3,926 53
Bridgeport Pumping Works.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	\$6,440 86	\$2,669 58	\$ 9,110 46	\$57,513 05	\$1,593 91	\$2,332 62	\$ 3,926 53

**REPORT IN REFERENCE TO CLAIM OF WILL F. A. BERNAMER FOR LEGAL SERVICES RENDERED IN CONNECTION WITH THE COLLECTION OF SANITARY DISTRICT TAXES.**

Mr. Smyth, member of the Committee on Judiciary, presented a report of the Committee as follows:

CHICAGO, July 24, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Judiciary, to which was referred the claim of Will F. A. Bernamer, deceased, for sixteen hundred twenty-four and twenty-seven one-hundredths (\$1,624.27) dollars for legal services rendered in litigation in regard to the collection of taxes herewith, reports that it has carefully considered the same, and recommends that the President and Clerk be authorized and directed to pay on the voucher of the Attorney the sum of eleven hundred eight and thirty-five one-hundredths (\$1,108.35) dollars, being twenty per cent of the amount paid into the Treasury of the District to the executor or administrator of the estate of the said Bernamer, deceased, and take a proper receipt therefor; and that the balance of said claim be allowed in the event that the cases now pending on appeal are settled favorably to the District.

Respectfully submitted,

(Signed) Z. R. CARTER,  
WM. H. BAKER,  
FRANK X. CLOIDT,  
THOMAS A. SMYTH,  
ALEX. J. JONES,

*Committee on Judiciary.*

(Seven enclosures.)

On motion of Mr. Smyth, seconded by Mr. Cloidt, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Carter, Cloidt, Jones and Smyth—Five.

*Nays*—None.

**REPORT SUBMITTING PERMANENT RULES AND REGULATIONS AND RULES OF ORDER OF THE BOARD OF TRUSTEES.**

Mr. Baker, member of the Committee on

Rules, presented a report from the Committee recommending that the rules, as prepared by the Committee and accompanying the report, be adopted as the Permanent Rules and Regulations and Rules of Order of the Board of Trustees.

Mr. Baker, seconded by Mr. Cloidt, moved that the report be adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Carter, Cloidt, Jones and Smyth—Five.

*Nays*—None.

The following is the report of the Committee on Rules:

CHICAGO, July 22, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Rules herewith reports the following as the Permanent Rules and Regulations and Rules of Order of the Board of Trustees, and recommends their adoption.

(Signed) ALEX. J. JONES,  
*Chairman.*  
WM. H. BAKER,  
J. C. BRADEN,  
FRANK X. CLOIDT,  
THOMAS J. WEBB,  
Z. R. CARTER,  
WM. LEGNER,  
THOMAS A. SMYTH,  
*Committee on Rules.*

The following are the Rules and Regulations and Rules of Order of the Board of Trustees as presented by the Committee:

**RULES AND REGULATIONS AND RULES OF ORDER.**

Under authority of law there has been established the municipality of "The Sanitary District of Chicago," of which the Board of Trustees is the legislative and administrative body.

The following Rules and Regulations and Rules of Order are hereby adopted by the Board of Trustees of the Sanitary District of Chicago to govern the proceedings and transactions of said Board and its Committees and to define the duties and the scope of the authority and official juris-

diction of the various officers, agents, and employes selected by said Board, and of the Committees appointed under the rules hereof, and to give notice to the world of such duties, scope of authority and jurisdiction.

#### MEETINGS.

1. The meetings of the Board shall be open to the public and it shall be the duty of the Clerk to provide accommodations for the press.

2. No act of any member or members of the Board or act or conclusions of any Committee of the Board shall be binding upon the Board unless said act be subsequently reported to and ratified by the Board or be under a special authority previously conferred by the Board.

3. Regular meetings of the Board of Trustees shall be held on Wednesday of each week, at half-past one o'clock P. M. sharp; *provided*, that from May 1 to October 1, the regular meetings of the Board shall be held on the second and fourth Wednesday of each month at the same hour.

4. Special meetings shall be called by the Clerk at the request of any three members, or of the President. It shall be the duty of the Clerk to give written notice to each Trustee of the time of each special meeting at least twenty-four hours previous thereto. The call for special meetings shall state the purpose thereof. At every special meeting the call for the same shall be read and afterwards filed by the Clerk, and no business other than that proposed by the call shall be in order at such meeting.

5. The proceedings of this Board, except as otherwise provided by these Rules, shall be governed by Robert's Rules of Order, but the same shall not be considered as applying in any case where their observance would require the suspension of any rule or rule of order other than those specifically adopted by this Board, in order to transact any business properly within the jurisdiction of the Board.

6. The annual meeting of the Trustees shall be held at 2 o'clock P. M. on the first Tuesday after the first Monday in December of each year, at which meeting a President and a Vice-President for the ensuing year shall be elected in such manner as the

Board may then determine. The Vice-President shall preside in the absence of the President; and in case of the absence from the District or the disability of the President the Vice-President shall perform all other duties of the President as set forth in the rules of the Board.

7. A majority of the whole Board of Trustees elected shall constitute a quorum. A quorum voting shall be necessary to the determination of every question submitted to the Board. If the question involves the expenditure of money, five affirmative votes shall be required to carry the same and shall be entered of record. A viva voce vote may be taken on any question by unanimous consent, but the yeas and nays shall be taken if asked for by any member of the Board.

#### COMMITTEES.

8. The following Committees, each comprising the entire membership of the Board, shall be appointed by the President as soon as practicable after each annual meeting of the Board. It shall be the duty of the President to designate the Chairman of the several Committees on the date of their appointment:

Committee on Judiciary.

Committee on Federal Relations.

Committee on Finance.

Committee on Engineering.

Committee on Annexation.

Committee on Labor.

Committee on Health and Public Order.

Committee on Rules.

9. It shall be the duty of the Clerk to notify all members of the Board of the date and hour of each Committee meeting.

10. A record shall be kept of the business done by each Committee, but the action of Committees shall have no binding effect upon the District or the Board unless said action be reported to and ratified by the Board by yeas and nays vote, or unless said action be under authority especially conferred by the Board by yeas and nays vote.

11. The duties of the Committee are to examine and report upon all matters that may be referred to it or upon which it may be instructed by the Board; to take cogni-

zance of and report matters within its province that may be of interest and importance to the Board; to keep itself informed in regard to the departmental work to which its duties are related, and to co-operate with and facilitate the same.

12. Prior to each regular meeting of the Board and on the same or a preceding day, at some stated time, each Departmental Committee shall hold a regular meeting for the purpose of taking cognizance of matters within its province, and considering any pending departmental business. But requisitions, reports, returns, vouchers and communications and documents for the use of the Board shall not be delayed in transit on account of any Committee. It shall be the duty of each head of department, in addition to all other requirements, to bring to the attention of the appropriate Committee all matters connected with his department, and the Clerk shall lay before the appropriate Committee all matters in transit to the Board.

It shall be proper and regular for any Committee to refer directly to another regular Committee, without transmission through the Board, any matter which in its judgment is within the jurisdiction of or demands the attention of said other Committee; and it shall be proper in such reference to authorize said other Committee to report its conclusions directly to the Board.

13. The Committee on Finance shall examine and approve all bills and vouchers before they are acted upon by the Trustees prior to each regular meeting of the Board. If any bills or vouchers are not approved by the Committee, the reasons therefor shall be reported to the Board.

14. The Board of Trustees may, however, in its discretion, order the payment of any bills or vouchers without reference of the same to the Committee on Finance; but in such cases it shall be the duty of the Clerk to properly endorse on the bill or voucher the authority for its payment.

15. All persons dealing or contracting with the District shall take notice of these Rules.

#### OFFICERS.

16. The President and Vice-President

of this Board shall be elected by the Board for the term of one year, and shall serve until their successors are elected and enter upon their duties. It shall be the duty of the President to preside at all meetings of the Board, and to see that the Rules and Instructions of the Board are complied with and enforced. The salary of the President shall be four thousand (\$4,000) dollars per annum.

17. The Board shall select a Clerk, a Treasurer, a Chief Engineer, and an Attorney for the municipality, who shall hold their offices during the pleasure of the Board. Each of these officers shall subscribe to the oath of office, and give bond, with sureties, to be approved by the Board.

18. The Board shall select a Marshal, who shall have charge, under the rules and directions of the Board, of the police force of the District. The salary of the Marshal shall not exceed the sum of \$2,400.00 per annum, and his bond shall be in the sum of ten thousand dollars.

All vacancies occurring in above offices shall be filled by the Board of Trustees as soon as practicable after they occur.

#### DEPARTMENTS.

19. There shall be maintained, under the supervision of the Board of Trustees, four executive departments, each under the authority of a general officer, governed by the Rules of the Board, viz.: A Clerical Department, in charge of the Clerk; a Treasury Department, in charge of the Treasurer; an Engineering Department, in charge of the Chief Engineer, and a Law Department, in charge of the Attorney.

#### CLERK.

20. The duties of the Clerk shall be to keep all the accounts, papers, books and records of the municipality, and he shall devote his time to the duties of his office. He shall attend all meetings of the Board, whether regular or called, and keep the records of the same, keep the corporate seal and affix the same to all papers which require it, and shall perform such other duties as are required by law, or by the ordinances, orders or resolutions of the Board. His salary shall be the sum of four thousand (\$4,000) dollars per

annum, and his bond shall be in the sum of one hundred thousand (\$100,000) dollars.

21. The Clerk shall select, subject to the confirmation of the Board, one Assistant Clerk, who shall be Acting Clerk when authorized by the Clerk and in his absence. The salary of said Assistant Clerk shall not exceed the rate of twenty-four hundred (\$2,400) dollars per annum.

22. The Clerk may appoint one Committee Clerk, one Stenographer and such additional force as may be authorized by the Board. The salary of said employees to be fixed by the Board of Trustees.

23. All requisitions for supplies and materials required to carry out any project approved by the Board shall be made upon the Clerk, except as otherwise provided in the regulations; and all requisitions shall state the purpose for which the articles are required.

24. All purchases, auditing of vouchers and issuing of warrants for the same, as ordered by the Board, shall pertain to the Clerical Department and be in charge of the Clerk. He shall file and transmit to the Board, all requisitions, audit all vouchers and check all returns, and shall keep the records of the Board and of its Committees.

25. All reports, documents, returns and communications for the use of the Board shall be addressed to the "Board of Trustees," and shall be filed in the Clerical Department.

26. The Clerk shall keep a record of the proceedings of the Board and shall print the same, and send a copy to each member and officer as soon as practicable; provided, however, that the final proofs of said printed records shall not be approved for general circulation until the official record of such proceedings shall have been approved by the Board; and provided, further, the first proofs shall not be authenticated by any designation indicating that the same were published by authority.

27. At each meeting of the Board the Clerk shall provide each Trustee with a schedule of the vouchers subject to approval at that meeting.

It shall also be the duty of the Clerical Department to supply the desks of the sev-

eral members with stationery, writing materials and bound copies of the proceedings as rapidly as the same may be printed.

28. The Clerk shall keep a record of the action of each Committee, and shall cause a verbatim report to be taken of the hearings and other proceedings before Committees, when required by the Committee.

29. The Clerk shall submit at each meeting a summary schedule, showing the number of employees in each department.

30. The general care of the offices of the District and of the Board shall be in charge of the Clerk.

31. There shall be an office in the Clerical Department for the President.

#### TREASURER.

32. The Treasurer shall receive all moneys of the municipality, and make such payments as shall be ordered by the Board upon warrants drawn by the President and countersigned by the Clerk. He shall sign all checks drawn for account of the District. He shall negotiate all bonds as directed by the Board, and make all payments of interest and for redemption of same at maturity, and he shall cover into the treasury all sums received as interest on any deposits of the funds of the District. He shall make such reports as required, and generally act as the financial adviser of the Board of Trustees. The office of Treasurer shall be at the headquarters of the Sanitary District. The salary of the Treasurer shall not exceed twenty-five hundred (\$2,500) dollars per annum, and he shall give bond in the sum of two million (\$2,000,000) dollars, and shall file a supplemental bond to cover any liability in excess of this amount when required by the Board.

The selection of depositories of the funds of the District in the hands of the Treasurer shall be entirely in the control of the Treasurer, and no action of this Board shall be considered as ratifying the selection of any depository by said Treasurer, or in any way waiving the strict liability of said Treasurer for the custody of, and accountability to, the Board for said funds.

33. The Treasurer may appoint an assistant at a salary not to exceed two thousand (\$2,000) dollars per annum, whose duties shall be prescribed by the Treasurer

and performed under his direction. He may employ any additional assistance as required and as authorized by the Board.

81. The Treasurer's office shall be open for business during banking hours of the City of Chicago.

85. The Treasurer shall file with the Clerk, between the first and third day of each month, a detailed statement for the preceding month, of receipts, disbursements and balances, including all sums received as interest on any deposit of the funds of the District.

86. The Treasurer shall submit an annual report showing the receipts and disbursement of money during the preceding fiscal year.

#### CHIEF ENGINEER.

87. The Chief Engineer shall have charge of all engineering work, under direction of the Board or the Committee on Engineering, and shall devote his time to the Sanitary District. Under his direction all surveying and civil engineering necessary, or ordered by the Board or by the Committee on Engineering, shall be done, and he shall perform such other duties as may be imposed upon him from time to time by ordinances, orders or resolutions of the Board or the Committee on Engineering, and shall attend the meetings of the Board when required. His salary, to be fixed by the Board or the Committee on Engineering, shall not exceed the sum of seven thousand (\$7,000) dollars per annum, and his bond shall be in the sum of twenty thousand (\$20,000) dollars.

88. The Chief Engineer shall have entire charge of the work of the Engineering Department, and shall organize and administer the same so as to secure a full record of the nature and cost of all operations, and full responsibility of all employees. But no person shall be eligible of appointment or employment in the Engineering Department hereafter who is not a resident of the Sanitary District and a citizen of the State of Illinois, or who has not declared his intention to become such, except by order of the Board and upon the recommendation of the Committee on Engineering.

89. The Division of Records shall be in the direct charge of the Chief Engineer. In it shall be kept all administrative and

financial records, and all reports from the several divisions. It shall also be charged with the duty of checking up estimates and returns made to the Chief Engineer by the Superintendent of Construction or any of the Assistant Engineers.

40. The Chief Engineer shall appoint, as authorized by the Board, such assistants and employes as the needs of the service may require, but shall not exceed the number authorized by the Board or by the Committee on Engineering, under authority of the Board.

All sub-assistant engineers, instrument men, sub-instrument men and draftsmen shall be men of technical competence and training for the duties assigned.

All appointments, changes of grade and fixing of pay shall be with the concurrence of the Committee on Engineering.

41. The Chief Engineer, under the direction of the Committee on Engineering, may employ a Record Clerk at a salary not exceeding \$1,800 per annum, and a typewriter at the rate of not exceeding \$35.00 per month.

42. In the absence or disability of the Chief Engineer, an assistant, to be designated by him or authorized by the Board, shall be Acting Chief Engineer and shall exercise all the functions vested in the Chief Engineer under the Rules of the Board.

43. All changes of plans whatsoever, by which any work is to be carried out in any manner different from that provided for in any contracts, shall be determined upon and authorized by the Board, and, wherever possible, proper specifications and plans therefor shall be filed for record with the Clerk, and the President shall issue notice, attested by the Clerk, to the parties in interest.

44. All current estimates of the work done under any contract, and the certificates therefor shall be made by the respective engineer in charge of said work, and the same be approved by the Chief Engineer.

45. Whenever the Chief Engineer shall give to the engineer or engineers in charge of any section of work, any order or instructions pertaining to the work of construction, a copy of the same shall at the

same time be spread upon the official records of the Engineering Department.

46. The employees confirmed or authorized by the Board shall at all times be subject to call before the Board and its authorized Committees, and it is made part of their duty to fully advise the Board, through the President or said Committees, of any matters of administration or engineering which may be for the good of the District, when requested so to do.

47. The Chief Engineer shall, at stated intervals, when the needs of the service require it, examine or cause to be examined by assistant engineers, selected by him for that purpose, any applicants for positions in the Engineering Department, where previous technical training is necessary.

No applicant shall receive an appointment unless the Chief Engineer shall be satisfied from such examination that he is fully qualified for the position sought.

Whenever, in the opinion of the Chief Engineer, a reduction of the force may be made consistently with the best interests of the District, he shall so report to the Board.

The Chief Engineer shall have the right of summary discharge for insubordination, inefficiency, or conduct unbecoming an employee of the Sanitary District. The merit system shall control all appointments and promotions in said Engineering Department.

#### ATTORNEY.

48. The Attorney shall have charge of all litigation to which this District shall be a party, and shall devote his time to the Sanitary District. He shall draft all papers required by the Board; attend upon all its meetings and the meetings of the several committees; give written opinions upon all questions referred to him by the Board or its officers, in the discharge of their duties, and generally attend to all law business of the Board. His salary shall be in the sum of five thousand (\$5,000) dollars per annum, and his bond shall be in the sum of twenty thousand (\$20,000) dollars.

49. The Attorney may appoint the following assistants as needed by him, subject to confirmation by the Board:

One Principal Assistant Attorney at a salary not to exceed the rate of three thousand six hundred (\$3,600) dollars per annum.

One Assistant Attorney at a salary not to exceed two thousand (\$2,000) dollars per annum.

One Assistant Attorney at a salary not to exceed eighteen hundred (\$1,800) dollars per annum.

The Attorney may employ such additional assistants, including stenographer and law clerks, as may be recommended by the Judiciary Committee and approved by the Board.

The duties of the Assistant Attorneys and other employees of the Law Department shall be prescribed by the Attorney and performed under his direction.

The Principal Assistant Attorney shall be Acting Attorney when authorized by the Attorney and in his absence.

50. There shall be appointed by the Board, upon consultation with the Attorney, a General Counsel, at a salary not exceeding the rate of five thousand (\$5,000) dollars per annum. His duties shall be to advise and consult with the Attorney of the Board in all matters pertaining to the legal business of the Sanitary District; when requested by the Board, to give written opinions, in connection with the Attorney of the Board, upon such matters as may be submitted to him and the Attorney, and generally to advise and consult with all members of the Board concerning the legal affairs of the District.

#### AMENDMENTS TO RULES AND REGULATIONS AND RULES OF ORDER.

51. All amendments and changes in these Rules and Regulations and Rules of Order must be proposed in writing, at a regular meeting of the Board, and shall not be acted on before the next regular meeting of the Board. The vote of a majority of the Trustees constituting the Board shall be necessary to their adoption.

#### MISCELLANEOUS.

52. The salary of each Trustee, except that of the President, shall be the sum of three thousand (\$3,000) dollars per annum.

53. The fiscal year shall be from the



first day of January to the thirty-first day of December, inclusive, and correspond with the calendar year.

54. The Board of Trustees shall approve all requisitions, vouchers and returns.

55. All requisitions, vouchers, returns and reports shall be signed by the head of a department, and shall be in duplicate, a copy to be preserved in the department originating the same, and one to be filed in the Clerical Department. The accounting of each department shall be separate and distinct.

56. All stationery and special departmental forms shall be provided and charged to the department requiring the same. The Board shall approve all blanks.

57. All general and miscellaneous expenditures which do not pertain specifically to a department shall be governed by the same general rules as a department and referred to a general account. All vouchers and requisitions shall state specifically the authority for incurring the liability.

58. All employees subject to confirmation by the Board shall hold their office during the pleasure of the Board. All other employees shall be subject to discharge by the head of the department employing them.

59. Requisitions shall be made for employees and shall include the rates of compensation proposed, except as specifically provided for in the regulations.

60. Pay-rolls shall be made up in the department in which the service was rendered as soon after the close of the month or week as practicable and turned in to the Clerk for audit, and on approval by the Board, payment and receipt of employee; *provided*, that discharged employees shall be paid currently from a fund provided for the purpose.

61. The classification of employees on pay rolls and returns, except as fixed by the regulations, shall indicate the duties performed, so far as practicable.

62. Specialists may be employed for any purpose approved by the Board, and at such rates of compensation as may be agreed upon and authorized.

63. Each department shall make out a semi-annual property return, which shall

exhibit all property of whatever character under the following designations:

On hand per last return..... Received during the half year..... Total to be accounted for..... Disposed of during the half year..... On hand..... day of..... 190.. From what source the property was received and its disposition shall be noted.

64. An annual report shall be made by each department as soon after the close of the fiscal year as practicable, and said report shall give a review of the operations of the year, a classified exhibit of departmental expenditures, the operations proposed for the current year and an estimate of the probable expenditure.

65. Each department shall make a monthly report, giving a distributed labor account, an abstract of departmental liabilities and expenses, and an estimate of liabilities for the current month; said report shall review the operations of the month and those proposed for the current month.

66. A communication, requisition, order or resolution shall be submitted for the approval of the Board, for all operations which involve liabilities; said communication, requisition, order or resolution shall set forth the operations proposed and the reasons therefor and the time required, with an approximate of the cost.

67. Expenditures for minor purchases, temporary employment and current field expenses, as demanded by the exigencies of the service, and such as cannot be reasonably anticipated and provided for in the usual way, may, at the discretion of an officer of the Board, be made from an emergency fund and returned on an emergency voucher. All emergency vouchers shall be drawn to the assistant by whom the liability is directly incurred.

68. All trustees, officers and employees, when traveling upon duty and under orders, shall be allowed actual and necessary expenses. All officers and employees shall be allowed their actual and necessary expenses in the field, except when assigned to some local station, or when the time in one locality is equivalent to a local assignment (which shall be considered as thirty (30) days), or when the salary is stipulated to cover the expenses in whole or in part. When assignments are temporary or

other than local, the fact shall be noted on the pay roll for said persons so assigned, and the Chief Engineer, immediately upon the assignment of such person, shall notify the Clerk of such assignment. All vouchers for field expenses shall be drawn to the assistant in immediate charge, and shall exhibit the items of liability incurred on account of each employe of the party for which the assistant is responsible.

69. The offices of the Clerk and Attorney shall be open from 9 A. M. to 5 P. M. and close on Saturdays at 1 P. M. The offices of the Chief Engineer shall be open from 8:30 A. M. to 5 P. M. and close on Saturdays at 1 P. M.

#### RULES OF ORDER.

Rule 1. All regular meetings of the Board shall begin promptly at two o'clock P. M., and all special meetings shall convene promptly at the hour provided in the call or order for said special meeting.

Rule 2. At the hour appointed for the meeting, the Clerk, or one of his assistants, shall proceed to call the roll of members, mark the absentees, and announce whether a quorum of the Board be present. Upon the appearance of a quorum, the Board shall be called to order, the President taking the chair, if present, and the Board appointing a temporary Chairman if he is absent. If a quorum do not appear for thirty minutes after the time of meeting the Board shall thereby stand adjourned to the next regular meeting, unless by a vote of the members present an adjournment be had to a subsequent date. When a quorum is present the Board shall proceed to the business before it, which shall be conducted in the following order:

1. The reading of the minutes of the proceedings of the last meeting or meetings, amendment and approval of the same.

2. Receiving reports of officers.

3. Unfinished business of preceding meetings.

4. Reports of Committees.

5. Presentation of petitions and communications.

6. Miscellaneous and new business.

Rule 3. All questions relating to the

priority of business shall be decided without debate.

Rule 4. Regular meetings of the Board of Trustees shall be held on Wednesday of each week, at two o'clock P. M., sharp; *provided*, that from May 1 to October 1, the regular meetings of the Board shall be held on the second and fourth Wednesday of each month at the same hour.

Rule 5. The acts of the Board shall be expressed by ordinances, orders, resolutions, and motions.

Rule 6. The presiding officer shall preserve order and decorum, and shall decide all questions of order subject to an appeal to the Board, on which appeal no member shall speak more than once.

Rule 7. Smoking shall be strictly prohibited in the Board room during the session of the Board.

Rule 8. When a member wishes to present a communication, petition, order, resolution or other original matter, he shall briefly state its nature before presenting the same.

Rule 9. No member, without leave of the Board, shall speak more than once upon the same subject until every member desirous of speaking shall have spoken, and no member shall speak longer than ten (10) minutes at any one time, except by consent of the Board.

Rule 10. While a member is speaking, no member shall hold any private discourse, or pass between the speaker and the Chair.

Rule 11. Every member who shall be present when a question is stated from the Chair shall vote thereon unless excused by the Board, and no member shall be recorded as voting unless present when the roll is called. By unanimous consent any Trustee may explain his vote when his name is called; but no explanation of the vote of any Trustee will be recorded in the minutes unless by order of or consent of the Board.

Rule 12. Any matter before the Board may be set down as a special order of business at a time certain, if a majority of the Trustees vote in the affirmative, but not otherwise.

Rule 13. No motion shall be put or debated unless it be seconded. When a motion is seconded it shall be stated by the presiding officer before debate, and every such motion shall be reduced to writing, if required by a member.

Rule 14. In all cases where a resolution, order or motion is entered on the minutes of the Board, the names of the members moving and seconding the same shall be entered also.

Rule 15. A motion to lay a question on the table is not debatable.

Rule 16. A motion to lay any particular proposition on the table shall apply to that proposition only, and not to any original proposition to which it may be an amendment or substitute.

Rule 17. When a motion is postponed indefinitely it shall not be again taken up at the same meeting.

Rule 18. On an amendment to "strike out and insert," the paragraph to be amended shall first be read as it stands; then the words proposed to be stricken out and those to be inserted; and, finally, the paragraph as it will stand, if so amended, shall be read.

Rule 19. A substitute for any original proposition in debate may be entertained when further amendment is not admissible; and, if accepted by the mover of such original proposition or by the Board by vote, it shall entirely supersede such original proposition, and cut off all amendments appertaining thereto.

Rule 20. A vote or question may be reconsidered at any time during the same meeting, or at the first regular meeting held thereafter.

Rule 21. It shall be the privilege of any Trustee to have his vote recorded on any one or more vouchers when presented to the Board for approval.

Rule 22. No bond of any character or whatsoever shall be regarded as finally approved without the affirmative vote of five members of the Board of Trustees, in regular or special session.

#### NOTICES OF SUIT FOR DAMAGES.

The Clerk presented the following notices of suit from Herman Selinger and A. S. Alderman, by their attorneys, being for damages to real estate, alleged to have been sustained by reason of the construction and enlargement of the Drainage Channel and other improvements made by the Sanitary District.

*To the Sanitary District of Chicago, Chicago, Illinois:*

You are hereby notified that the undersigned claims damages to the real estate owned and possessed by him and described as follows, to-wit: all that part of the west half of the southwest quarter of Section 21, Township 35 North, Range 10, East of the Third Principal Meridian, which lies north of the right of way of the Chicago, Santa Fe and California Railroad Company, in the County of Will and State of Illinois, overflowed and otherwise damaged to the amount of five thousand (\$5,000.00) dollars, by reason of the construction, enlargement and use of the Drainage Channel ditches, drains, outlets and other improvements made by the said Sanitary District of Chicago, under the provisions of an act entitled "An Act to create Sanitary Districts and to remove obstructions in the Des-plaines and Illinois rivers," approved May 29th, 1889, in force July 1st, 1889, and acts amendatory thereof, and that unless a compromise is effected in the manner and within the time limited by the statute in such case provided, he intends to sue for the same.

Respectfully,

HERMAN SELINGER,

By DONAHOE & MCNAUGHTON,

*His Attorneys and Agents.*

*To the Sanitary District of Chicago, Chicago, Illinois:*

You are hereby notified that the undersigned claims damages to the real estate owned and possessed by him in Section 26, Township 37 North, Range 10 East of the Third Principal Meridian, in the County of Will and State of Illinois, overflowed and

THE BIDS IN DETAIL FOR SUPERSTRUCTURE OF LIFT BRIDGE ACROSS THE CHICAGO RIVER AT STATE STREET  
IN THE CITY OF CHICAGO.

In Order of Magnitude—Lowest Bid First—Opened July 24, 1901.

No. of Bid.	Order of Magnitude.	NAME OF BIDDER.	—a— Lump Sum for Superstructure— Metal.	—b— For Furnishing Pit Linings. Cts. per lb.	—c— For Extra Medium Soft Steel. Cts. per lb.	—d— For Extra Iron Castings. Cts. per lb.	—e— For Extra Cast Steel Track Plates. Cts. per lb.	—f— For Extra Steel & Machinery Cast-ings. Cts. per lb.	—g— For Extra Phosphor Bronze. Cts. per lb.	—h— For Extra Counter Wt. Bk. Castings. Cts. per lb.	—i— For Extra Yellow Pine or Oak, per 1,000 B. M.	—j— Moving North Approach Spans of State Street and Connecting with New Bridge.	Total Extra Cost for Furnishing Counter Weight Pit Linings. 107,000 lbs.	Total of column, a+k.
			Order Received	Order of Magnitude.										
1	1	American Bridge Co., of New York,.....	\$ 88,400	.05	.04	.04	.10	.10	.50	.02	\$50	\$1,500	\$5,350	\$ 87,900
2	2	The King Bridge Co., of Cleveland, Ohio.	101,600	.05	.05%	.05	.06%	.08	.40	.03	40	2,500	5,350	104,100

THE BIDS IN DETAIL FOR SUPERSTRUCTURE OF LIFT BRIDGE ACROSS THE CHICAGO RIVER AT HARRISON STREET  
IN THE CITY OF CHICAGO.

In Order of Magnitude—Lowest Bid First—Opened July 24, 1901.

No. of Bid	Order of		NAME OF BIDDER.	a— Lump Sum for Superstructure and Substructure Metal as Specified	b— For Furnishing Plt Cts. per lb.	c— For Extra Medium Soft Steel Cts. per lb.	d— For Extra Iron Castings Cts. per lb.	e— For Extra Cast Steel Track Plates Cts. per lb.	f— For Extra Steel and Machinery Cast- ings Cts. per lb.	g— For Extra Phosphor Bronze Cts. per lb.	h— For Extra Counter Weight Block Castings Cts. per lb.	i— For Extra Yellow Pine or Oak, per 1,000 ft. B. M.	Total Extra Cost for Furnishing Counter Weight Plt Linings, 85,650 lbs.
	Order Received	Magnitude											
1	1	1	American Bridge Co., of New York.....	\$ 83,500 00	.05	.04	.04	.10	.10	.50	.02	\$ 50 00	\$4,782 00
2	2	2	The King Bridge Co., Cleveland, Ohio.....	103,700 00	.05	.05%	.05	.06%	.08	.40	.03	40 00	4,782 00

July 24,]

—7366—

[1901

[1901

STATE STREET IN THE CITY

A.

-h-		-i-		-k-	
Portland Cement Concrete. 3,830 Cu. Yds.		Cement Facing for Counter Wt. Pits. 250 Cu. Yds.		Steel L for Co Wt. 1 107,000	
Price per Cu. Yd.	Total.	Price per Cu. Yd.	Total.	Price per Lb.	
\$ 5 00	\$19,150 00	\$ 9 00	\$ 2,250 00	\$ 0 00 3/4	\$
5 00	19,150 00	15 00	3,750 00	1/2	
4 90	18,767 00	15 00	3,750 00	3/4	
5 20	19,916 00	9 00	2,250 00	1/2	
5 05	19,341 50	15 00	3,750 00	3/4	

H HARRISON STREET IN THE CITY

1901.

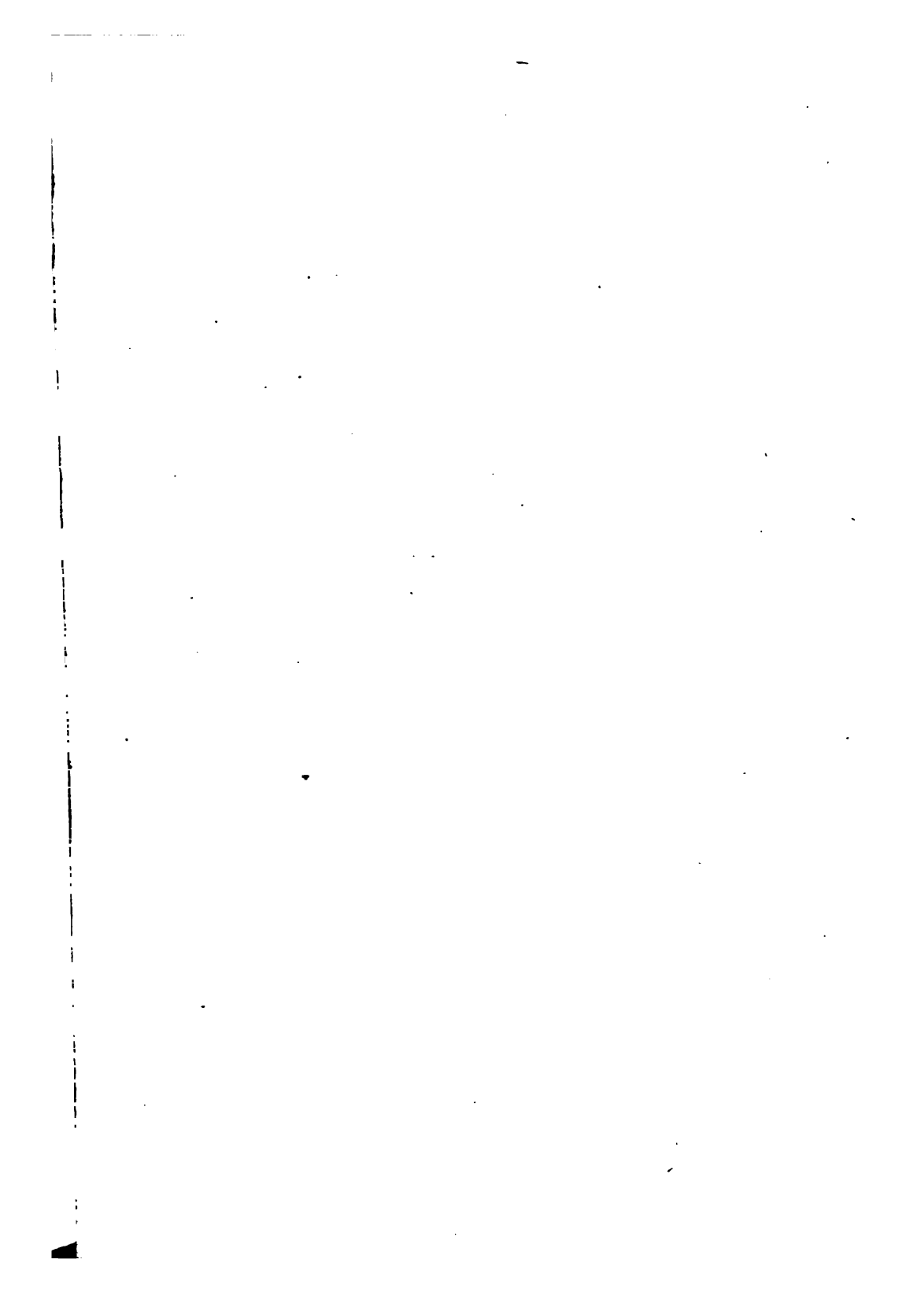
-h-		-i-		-k-	
Portland Cement Concrete. 3,620 Cu. Yds.		Cement Facing for Counter Wt. Pits. 210 Cu. Yds.		Steel L for Co Wt. 1 95,650 L	
Price per Cu. Yd.	Total.	Price per Cu. Yd.	Total.	Price per Lb.	
\$ 5 00	\$18,100 00	\$ 9 00	\$ 1,890 00	\$ 0 00 3/4	\$
5 20	18,824 00	10 00	2,100 00	1/2	
5 00	18,100 00	15 00	3,150 00	1/2	
4 90	17,738 00	19 00	3,990 00	3/4	
5 05	18,281 00	15 00	3,150 00	1	
5 50	19,910 00	17 00	3,570 00	3/4	

ADJOURN

On motion of Mr. Carter, seconded by







July 24,]

—7368—

1901

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

AUGUST 14, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Thirty-seventh Regular Meeting of the Board of Trustees of the Sanitary District of Chicago, was held in the Rooms of the Board, Security Building, Wednesday, August 14, 1901, at 2 o'clock, P. M.

The President, Mr. Jones, took the chair,

and the meeting being called to order, there were then

*Present*—Messrs. Braden, Carter, Cloldt, Jones, Legner, Smyth and Webb—Seven members.

*Absent*—Messrs. Baker and Wenter—Two members.

**MINUTES.**

On motion of Mr. Cloldt, seconded by Mr. Smyth, the minutes of the regular meeting held July 24, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

Lydon & Drews Company (Pan Handle Temporary Bridge, Sec. O)....\$ 500 00  
Lydon & Drews Company (Canal Street Bridge, August 1, 1901)..... 6,261 50

Lydon & Drews Company (Chicago River Improvement, dredging and docking).....	\$15,328 25
Lydon & Drews Company (Chicago River improvement, rock excavation).....	9,445 62
Lydon & Drews Company (Main Street Bridge, August 1, 1901).....	2,882 46
Lydon & Drews Company (account rip-rapping Southwest Boulevard Bridge, Sec. O)....	14 00
Frank M. Montgomery Company (bridge royalty and plans).....	6,000 00
Page & Shnable (Ashland Avenue Bridge, August 1, 1901).....	4,722 99
Chicago Junction Railway Company (Pan Handle Permanent Bridge, Sec. O).....	973 66
The Belt Railway Company of Chicago (Belt Railway Bridge, Sec. K)	82 47
Heldmaier & Neu (removing material, Ruby Street Bridge, etc.) .....	764 90
Heldmaier & Neu (Sec. 17, August 1, 1901).....	3,930 94
The Chicago and Alton Railroad Company (account railway pass).....	280 00
A. R. Porter, Clerk (water power development, Controlling Works)...	967 81
Thos. F. Ryan (water power development, Controlling Works).....	55 58
Chas. F. Elmes Engineering Works (piping, Bear Trap Dam).....	55 00
Crane Company (piping, Bear Trap Dam).....	68 81
Isham Randolph, Chief Engineer (petty expenses, sundry sections)....	114 59
	<u>\$ 52,348 08</u>

## ENGINEERING DEPARTMENT.

Eugene Dietzgen Company (drafting supplies) .....	\$ 106 82
Orr & Lockett Hardware Company (hardware) ..	2 72
S. J. Stebbins Company (hardware) .....	4 43
H. Schultz & Co. (paper file boxes).....	9 20
J. W. Landis (wooden stakes).....	51 25
John A. Roebbling's Sons Company (wire).....	7 81
P. F. Pettibone & Co. (stationery).....	48 50
H. Isak (gauge reading, July, 1901) .....	10 00
Weir & Craig Manufacturing Company (sounding rod) .....	1 26
The Consumers Company (hydrox water) ..	7 50
American Water Company (water).....	23 63
Marshall Field & Co. (signal cloth).....	1 40
Standard Oil Company (oil for cement testing, laboratory) .....	3 08
Union Stoneware Company (cooler cement testing, laboratory).....	3 00
The Chicago Towel Supply Company (towel, April, May, June, 1901)	29 37
W. H. Salisbury (rubber goods).....	19 74
W. G. Derbyshire (C. T. T. R. R. Bridge inspection, July, 1901) .....	100 00
Pittsburgh Testing Laboratory, Limited (inspecting bridge material) ..	207 36
Isham Randolph, Chief Engineer (expense).....	161 50
G. M. Wisner (expense).....	201 70
W. Trinkaus (expense).....	13 52
Keuffel & Esser Company (blue prints) .....	13 96
Pearson Bros. (blue prints).....	28 58
Francis Beidler & Co. (lumber).....	7 10
Fuller & Fuller Company (sponges) .....	2 00
John F. Decker & Co. (photo material).....	2 20
Knickerbocker Ice Company (ice).....	6 53
Geo. B. Carpenter & Co. (paint and oils).....	16 95
Heldmaier & Neu (soundings, Sec. 17).....	16 10
R. Walter Smith (repairing buzzer system) .....	7 10
	<u>\$ 1,114 36</u>

## CLERICAL DEPARTMENT.

The Stationery Manufacturing Company (letter files).....	\$ 2 50
The Chicago Towel Supply Company (towel, April, May, June, 1901)	9 75
	<u>\$ 12 25</u>

## LAW DEPARTMENT.

John S. Runnells (services General Counsel, July, 1901).....\$ 416 66

## POLICE DEPARTMENT.

Thos. F. Ryan (screen door, Lockport Station).....\$ 8 96

## GENERAL ACCOUNT.

Chicago Telephone Company (toll service, June, 1901) .....	\$ 25 50	
The Chicago Federationist (advertising).....	4 30	
The Abendpost Company (advertising).....	19 50	
The Inter Ocean Publishing Company (advertising).....	5 55	
The Chicago Chronicle Company (advertising).....	7 00	
Chicago Journal (advertising).....	8 00	
The Chicago Daily Republican (advertising) .....	7 40	
Peobody Coal Company (coal, Steamer Juliet).....	37 80	
Youghiogheny and Lehigh Coal Company (coal, Steamer Juliet). ....	51 90	
H. Lewis & Co. (oils, Steamer Juliet).....	14 00	
Geo. B. Carpenter & Co. (ship chandlery, Steamer Juliet). ....	5 90	
Dunham Towing and Wrecking Company (repairs, Steamer Juliet)....	39 74	
Elite Laundry (laundry, Steamer Juliet).....	6 84	
Consolidated Press Clipping Company (clippings, March, April, May, June, 1901).....	32 90	
Security Building Receivership (rent of offices August, 1901).....	458 33	
John F. Higgins (printing proceedings, July, 1901).....	196 12	
	<u>\$</u>	920 78

## MAINTENANCE ACCOUNT.

W. T. Keating (expense).....	\$ 10 60	
Stearn Lime and Stone Company (lime, Bridgeport Pumping Works)..	4 50	
A. J. Dunbar (hardware, Bridgeport Pumping Works).....	24 53	
The Hawley Down Draft Furnace Company (grates, Bridgeport Pump- ing Works).....	129 60	
A. Sharp, (repairs, Bridgeport Pumping Works) ...	17 80	
Standard Oil Company (oil, Controlling Works). ....	36 83	
G. M. Wisner (expense) .....	5 35	
Edward Hines Lumber Company (lumber).....	3 47	
	<u>\$</u>	232 18

## TAXES ON LAND, WILL COUNTY.

James Todd, Attorney (special assessment, 1901).....\$ 4 86

## TELEPHONE LINE.

Western Telephone Construction Company (repairs).....	\$ 6 00	
G. M. Wisner (expense).....	15 25	
	<u>\$</u>	21 25
Grand total.....		<u>\$ 55,074 88</u>

Mr. Carter, seconded by Mr. Cloldt, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Braden (except as to maintenance account vouchers for Bridgeport Pump-

ing Works in favor of Stearn Lime and Stone Company for \$4.20; A. J. Dunbar, \$24.53; Hawley Down Draft Furnace Company, \$129.60; and A. Sharp, \$17.30, on which Mr. Braden voted nay), Carter, Cloldt, Jones, Legner, Smyth and Webb—Seven.

*Nays*—None (except as above noted).

## MONTHLY REPORT OF THE TREASURY DEPARTMENT.

The Clerk presented the report of the Treasury Department for the month of July, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

## SANITARY DISTRICT OF CHICAGO.

*Treasurer's Report for July, 1901.*

*Receipts.*

Balance on hand at date of last report.....	\$ 1,440,883 32
From County Treasurer, Sanitary District Tax Account.....	\$ 100,000 00
From A. R. Porter, Clerk, Dock and Land Improvement and Rental Account.....	387 88
From A. R. Porter, Clerk, Halvorson, Richards & Co.....	2,358 84
From Chicago National Bank, Interest Account.....	844 81
From Equitable Trust Company, Interest Account.....	424 63
From Home Savings Bank, Interest Account.....	339 72

Total cash received for month.....	104,905 83
	<u>\$ 1,545,188 65</u>

*Disbursements.*

Police Department.....	\$ 1,885 72
Clerical Department.....	1,014 99
Treasury Department.....	750 00
Engineering Department.....	17,085 46
Construction Account.....	41,077 30
Law Department.....	2,559 68
Maintenance Account.....	3,064 65
General Account.....	5,329 04
Dock and Land Improvement and Rental Account.....	743 60
Interest and Premiums on Bonds Account.....	237,975 00
Bond Account.....	200,000 00
Tax Warrants Paid—Levy 1899.....	2,258 64
Interest Paid on Tax Warrants—Levy 1899.....	93 72

Total cash disbursed.....	\$ 513,747 80
Balance this date in banks, as per schedule endorsed hereon.....	1,081,390 85
	<u>\$ 1,545,188 65</u>

*Schedule.*

Chicago National Bank.....	\$ 553,213 06
Equitable Trust Company.....	250,000 00
Home Savings Bank.....	200,000 00
Illinois Trust and Savings Bank.....	239 01
National Bank of Illinois.....	25,938 78
Total.....	<u>\$ 1,081,390 85</u>

Chicago, August 6, 1901.

F. M. BLOUNT, *Treasurer.*

By S. P. BLOUNT, *Assistant Treasurer.*

WAR DEPARTMENT ORDER RESTRICTING FLOW OF WATER THROUGH THE CHICAGO RIVER AMENDED SO AS TO PERMIT A FLOW OF 300,000 CUBIC FEET PER MINUTE BETWEEN 4:00 P. M. AND 12:00 MIDNIGHT.

President Jones presented the following communication received from Secretary of War Elihu Root:

WAR DEPARTMENT,  
WASHINGTON, July 23, 1901. }

SIR—Referring to War Department order

of April 9th last, restricting the flow of water through the Chicago River under War Department permit of May 8, 1899, to 200,000 cubic feet per minute, and replying to your letter of the 15th instant, in which you request, for reasons stated, that the said order be amended to permit a flow of 300,000 cubic feet per minute between the hours of 4 P. M. and twelve o'clock midnight, I beg to inform you that I have this day approved the modification last referred to, which approval will be subjected to revocation by the Department in case the

increase shall prove to be dangerous to navigation.

Very respectfully,

(Signed)

ELIHU ROOT,

*Secretary of War.*

Mr. Alexander J. Jones, President Sanitary District of Chicago, Chicago, Ill.

The above communication, by unanimous consent, was ordered printed and placed on file as a part of the permanent records of the Board.

REPORT ON BIDS FOR THE ERECTION OF SUB AND SUPERSTRUCTURES OF BRIDGES CROSSING THE CHICAGO RIVER AT STATE AND HARRISON STREETS.

Mr. Braden, Chairman of the Joint Committee on Engineering and Finance, presented a report from the Committee as follows:

CHICAGO, August 13, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Engineering and Finance to which was referred July 24th, 1901 (page 7362 of Proceedings) the matter of bids for supplying and erecting the substructure and superstructure for the bridge across the Chicago River at State Street, and for supplying and erecting the substructure and superstructure for the bridge across the Chicago River at Harrison street, herewith makes report that it has carefully examined and considered each of the several lists of bids submitted upon the work mentioned as heretofore advertised and tabulated, and finds that the lowest bidder upon each of said structures of the work as advertised is as follows, respectively:

For supplying and erecting the superstructure for the bridge across the Chicago River at State Street is the American Bridge Company of New York.

For supplying and erecting the superstructure for the bridge across the Chicago River at Harrison Street is the American Bridge Company of New York.

For supplying and erecting the substructure for the bridge across the Chi-

cago River at State Street is Lydon & Drews Company, of Chicago, Illinois.

For supplying and erecting the substructure for the bridge across the Chicago River at Harrison Street is Lydon & Drews Company, of Chicago, Illinois.

And your Committee reports that each of said lowest bidders is, in its opinion, responsible, and therefore recommends that the contracts, respectively, for the execution of said work as hereinbefore mentioned, in the manner described in the advertisement, plans and specifications heretofore prepared by the Engineering Department, be let to the firm or corporation designated in the order hereinafter named, and at the prices hereinafter stated, to-wit: The contract for supplying and erecting the superstructure for the bridge across the Chicago River at State Street to the American Bridge Company of New York at the following prices:

Superstructure, lump sum, eighty-six thousand four hundred (\$86,400.00) dollars; for furnishing pit linings, per pound, five (5) cents; for extra medium soft steel, per pound, four (4) cents; for extra iron castings, per pound, four (4) cents; for extra cast steel track plates, per pound, ten (10) cents; for extra steel and machinery castings, per pound, ten (10) cents; for extra phosphor bronze, per pound, fifty (50) cents; for extra counterweight block castings, per pound, two (2) cents; for extra yellow pine or oak, per 1,000 B. M., fifty (\$50.00) dollars; moving north approach spans of State Street and connecting with new bridge, fifteen hundred (\$1,500.00) dollars.

The contract for supplying and erecting the superstructure for the bridge across the Chicago River at Harrison Street to the American Bridge Company of New York at the following prices:

Superstructure, lump sum, ninety-three thousand five hundred (\$93,500.00) dollars for furnishing pit linings, per pound, five (5) cents; for extra medium soft steel, per pound, four (4) cents; for extra iron castings, per pound, four (4) cents; for extra cast steel track plates, per pound, ten (10) cents; for extra steel and machinery castings, per pound, ten (10) cents; for extra phosphor bronze, per pound, fifty (50) cents; for extra counter weight block castings,

per pound, two (2) cents; for extra yellow pine or oak, per 1,000 feet, B. M., fifty (\$50.00) dollars.

The contract for supplying and erecting the substructure for the bridge across the Chicago River at State Street to Lydon & Drews Company, of Chicago, Illinois, at the following prices:

Excavation, price per cubic yard, forty (40) cents; sheet piling and bracing, price per 1,000 feet, B. M., thirty-five (\$35.00) dollars; oak timber in wales, price per 1,000 feet, B. M., forty (\$40.00) dollars; pine foundation piles, delivered, price per lineal foot, fifteen (15) cents; oak protection piles, delivered, price per lineal foot, twenty (20) cents; piles driven in foundation, price per lineal foot, ten (10) cents; clay and gravel for coffer-dam filling, price per cubic yard, forty (40) cents; piles driven in protection, price per lineal foot, eight (8) cents; Portland cement concrete, price per cubic yard, five (\$5.00) dollars; cement facing for counterweight pits, price per cubic yard, nine (\$9.00) dollars; steel linings for counterweight pits, three-quarters ( $\frac{3}{4}$ ) cent; substructure metal, price per pound, one-half ( $\frac{1}{2}$ ) cent; removal of present superstructure, lump sum of one thousand (\$1,000) dollars; removal present substructure, lump sum of two thousand (\$2,000) dollars; sewer work, one thousand (\$1,000) dollars; dredging channel and removing material, price per cubic yard, twenty (20) cents.

The contract for supplying and erecting the substructure for the bridge across the Chicago River at Harrison Street to Lydon & Drews Company, of Chicago, Illinois, at the following prices:

Excavation, price per cubic yard, forty (40) cents; sheet piling and bracing, price per 1,000 feet, B. M., thirty-five (\$35.00) dollars; oak timber in wales, price per 1,000 feet, B. M., forty (\$40.00) dollars; pine foundation piles, delivered, price per lineal foot fifteen (15) cents; oak protection piles, delivered, price per lineal foot, twenty (20) cents; piles driven in foundation, price, per lineal foot, ten (10) cents; clay and gravel for coffer-dam filling, price per cubic yard, forty (40) cents; piles driven in protection, price per lineal foot, eight (8) cents; Portland cement concrete, price per cubic yard, five (\$5.00) dollars; cement facing for counterweight pits,

price per cubic yard, nine (\$9.00) dollars; steel lining for counterweight pits, price per pound, three-quarters ( $\frac{3}{4}$ ) cent; substructure metal, price per pound, one-half ( $\frac{1}{2}$ ) cent; removal present superstructure, lump sum of six hundred (\$600.00) dollars; removal present substructure, lump sum of six hundred (\$600.00) dollars; sewer work, one thousand (\$1,000.00) dollars; dredging and removing material, price per cubic yard, twenty (20) cents.

Your Committee, therefore, further recommends that the President and Clerk of the District be authorized and directed to execute on behalf of the District said contracts, respectively, in the form to be prepared according to said advertisement, plan and specification, and as soon as the same shall have been executed by the firm or corporations, respectively, above mentioned, for the work awarded to said firm or corporation, respectively, above mentioned, and bonds shall have been furnished and approved by the Committee on Finance for the faithful performance of the work specified in the penal sum set forth as follows:

By the American Bridge Company, a bond in the sum of thirty-five thousand (\$35,000.00) dollars on each of the contracts awarded to said American Bridge Company; by Lydon & Drews Company, a bond in the sum of fifteen thousand (\$15,000.00) dollars, on each of the contracts awarded to said Lydon & Drews Company. Each of said bonds to be executed in proper form with a surety company acceptable to and approved by the Committee on Finance.

Respectfully submitted,

(Signed)

JOSEPH C. BRADEN,  
*Chairman.*  
Z. R. CARTER,  
THOMAS J. WEBB,  
THOMAS A. SMYTH,  
WM. LEGNER,  
FRANK X. CLOIDT,  
ALEX. J. JONES,

*Joint Committee on Engineering and Finance.*

(One enclosure.)

Mr. Braden, seconded by Mr. Legner, moved that the report be adopted and the



recommendations contained therein concurred in.

The roll being called the report was adopted by the following vote:

*Yeas*—Messrs. Braden, Carter, Cloldt, Jones, Legner, Smyth and Webb—Seven.

*Nays*—None.

REPORT DIRECTING THE CHIEF ENGINEER TO PROCEED WITH THE FILLING OF CERTAIN LANDS IN CONTRACT SECTION 17 BELONGING TO THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY.

Mr. Smyth, member of the Committee on Engineering, presented a report from the Committee as follows:

CHICAGO, July 22, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Engineering, having carefully considered the filling of certain lands belonging to the Atchison, Topeka and Santa Fe Railway Company, located in Contract Section 17 of the Sanitary District, in accordance with a contract entered into with said company on the 30th day of November, 1898, and being fully advised in the premises, recommends that the Chief Engineer be instructed to proceed with said filling under the terms of said contract, and his communication herewith submitted.

Respectfully submitted,

(Signed) ALEX. J. JONES,  
THOMAS A. SMYTH,  
Z. R. CARTER,  
WM. H. BAKER,  
THOMAS J. WEBB,  
WM. LEGNER,

*Committee on Engineering.*

(Four enclosures.)

Mr. Smyth, seconded by Mr. Carter, moved that the report be adopted and the recommendations contained therein concurred in.

The roll being called, the report was adopted by the following vote:

*Yeas*—Messrs. Carter, Jones, Legner, Smyth and Webb—Five.

*Nays*—Mr. Braden—One.

*Excused and not voting*—Mr. Cloldt—One.

REPORT IN REFERENCE TO PROPOSITION OF THE JOLIET ARTIFICIAL STONE COMPANY FOR THE PURCHASE OF STONE ON THE RIGHT OF WAY OF THE DISTRICT BETWEEN JACKSON AND CASS STREETS, IN JOLIET.

Mr. Braden, Chairman of the Committee on Engineering, presented a report from the Committee, accompanied by a form of agreement with the Joliet Artificial Stone Company.

The report is as follows:

CHICAGO, August 14, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering begs leave to report that a proposition has been made by the Joliet Artificial Stone Company, a corporation of the City of Joliet, Illinois, for the purchase of the stone situated on the right of way of the Sanitary District between Jackson Street and Cass Street, in the City of Joliet, Illinois, at the price of three (3) cents per cubic yard, as said stone comes from the crusher; and as a further consideration is willing to remove from said spoil bank, and completely clean the same, of all rubbish, spoil deposits and debris of whatever nature and leave said land in a good and clear condition for rental or other improvement, and to reserve to the District the right to take or keep any portion of said stone at any time for the corporate purposes of the District and for the purpose of the development or improvement of its leaseholds, or the development of water power, or any other utility incidental to or dependent upon the Drainage Canal or the real estate of said Sanitary District.

The Chief Engineer of the District reports that the stone situated on that portion of the right of way described is of very inferior quality, and your Committee is of the opinion that it is advisable to have the stone, rubbish, spoil and other deposits and debris of whatsoever nature removed from the premises above described and to have the same cleared and placed into con-

dition for rental, improvement or such other purposes for which it may be adapted.

Therefore your Committee recommends that the proposition of said Joliet Artificial Stone Company be accepted, with the reservations to the District of the right to take or keep any portion of this stone at any time for the corporate purposes of the District and for the purpose of the development or improvement of its leaseholds, or the development of water power, or any other utility incidental to or dependent upon the Drainage Canal or real estate of said Sanitary District, and that said second party, as a further consideration, shall remove from said spoil bank and completely clean the same of all rubbish, spoil, deposits and debris of whatsoever nature, and leave said land in good and clear condition for rental or other improvement, and that the laying of tracks and removal of the same shall be done under the direction of the said Sanitary District or its authorized representative, and that the President and Clerk be authorized to enter into an agreement, in the form hereto attached, with said Joliet Artificial Stone Company for the sale of said stone and the clearing of said right of way above mentioned.

Respectfully submitted,

(Signed) JOSEPH C. BRADEN,  
Chairman.  
Z. R. CARTER,  
THOMAS J. WEBB,  
THOMAS A. SMYTH,  
WM. LEGNER,  
FRANK X. CLOIDT,  
ALEX. J. JONES,

*Committee on Engineering.*

On motion of Mr. Braden, seconded by Mr. Smyth, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Braden, Carter, Cloidt, Jones, Legner, Smyth and Webb—Seven.

*Nays*—None.

The following is the form of agreement referred to in the report of the Committee and to be entered into with the Joliet Artificial Stone Company:

THIS AGREEMENT, Made and entered into this — day of August, A. D. 1901, between the Sanitary District of Chicago, party of the first part, and the Joliet Artificial Stone Company, a corporation, of the City of Joliet, Illinois, party of the second part.

*Witnesseth*, That the said party of the first part hereby sells to said party of the second part all of the stone in the spoil bank of the Sanitary District of Chicago, situated on its right of way between Jackson Street and Cass Street, in the City of Joliet, Illinois, said stone to be removed by said second party from said right of way on or before January 1, 1904.

*It is Further Understood and Agreed*, however, that said party of the first part shall have the right at any time to reserve out of said stone above mentioned such quantities as it may desire for its corporate purposes and for the purposes of the development or improvement of its leaseholds or the development of water power, or any other utilities incidental to or dependent upon the Drainage Canal or the real estate of the Sanitary District.

*It is Further Understood and Agreed*, That the party of the second part shall have the privilege of laying the necessary switch tracks and to locate a crusher, with the appurtenances thereto, on the right of way of said Sanitary District of Chicago, between the streets above mentioned, but that the laying of such switch tracks and the location of said crusher, with the appurtenances, etc., and the removal of the same, shall be done under the supervision and direction of the party of the first part or its authorized representative.

*It is Further Agreed*, That said party of the second part shall pay to the said party of the first part for all of the stone crushed by said second party, as the same comes from the crusher, the sum of three (3) cents per cubic yard; and that as a further consideration for said stone the party of the second part shall remove from said spoil bank, and completely clean the same, of all rubbish, spoil and deposits and debris of whatsoever nature, so as to leave said land in good and clear condition for rental, improvement, or such other purposes for which it may be adapted.

*In Witness Whereof*, The parties have hereunto set their hands and seals this ..... day of August, A. D. 1901.

THE SANITARY DISTRICT OF CHICAGO,

By .....

Attest: ..... *President.*

.....  
*Clerk.*

JOLIET ARTIFICIAL STONE COMPANY.

By .....

Attest: ..... *President.*

.....  
*Secretary.*

**REPORT APPROVING SURETY BONDS OF  
LYDON AND DREWS COMPANY ON CON-  
TRACTS FOR THE CONSTRUCTION OF  
SUBSTRUCTURES FOR THE BRIDGES  
CROSSING THE CHICAGO RIVER AT  
STATE AND HARRISON STREETS.**

Mr. Carter, Chairman of the Finance Committee, presented a report from the Committee as follows:

CHICAGO, August 14, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance begs leave to report that it has examined the bonds given by Lydon & Drews Company for the construction of the substructure for the bridges across the Chicago River at State Street and Harrison Street, said bonds being each in the sum of fifteen thousand (\$15,000.00) dollars, with the City Trust, Safe Deposit and Surety Company of Philadelphia as surety.

Your Committee finds each of said bonds to be executed in proper form, and hereby approves said surety on each of said bonds and recommends that the same be approved by your Honorable Body.

Respectfully submitted,

(Signed) Z. R. CARTER,  
*Chairman.*

FRANK X. CLOIDT,  
JOSEPH C. BRADEN,  
THOMAS J. WEBB.  
THOMAS A. SMYTH,  
WM. LEGNER,  
*Committee on Finance.*

On motion of Mr. Carter, seconded by Mr. Cloidt, the report was adopted and the recommendations contained therein concurred in.

*Yeas—Messrs. Braden, Carter, Cloidt, Jones, Legner, Smyth and Webb—Seven.*

*Nays—None.*

The report being accompanied by said bonds and contracts in duplicate.

The following are the contracts.

**SUBSTRUCTURE FOR STATE STREET  
BRIDGE.**

**SANITARY DISTRICT OF CHICAGO.**

Contract and Specifications for the Substructure of a Highway Rolling Lift Bridge of the Scherzer type, crossing the South Branch of the Chicago River, in the City of Chicago, to be built for the Sanitary District of Chicago.

*This Agreement, Made and entered into this fourteenth (14th) day of August, A. D. 1901, by and between the Sanitary District of Chicago, of the first part, and Lydon & Drews Company, a corporation organized and existing under and by virtue of the laws of the State of Illinois, of the second part.*

*A—*

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the Highway Rolling Lift Bridge for the Sanitary District of Chicago, crossing the South Branch of the Chicago River at State Street in the City of Chicago.

*B—*

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer or other designated representative of the Sanitary District of Chicago, and his properly authorized agents, and by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer or other designated representative shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein expressed; and the Chief Engineer or other designated representative of the Sanitary District in charge of said work shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

*C—*

Wherever the words "Sanitary District" are used in this contract, they shall be understood to

mean the Sanitary District of Chicago, as represented by the Board of Trustees of the Sanitary District or their duly authorized and accredited agents.

Whenever the word "Engineer" is used herein, it shall be understood to mean either the Chief Engineer of the Sanitary District of Chicago, or the duly designated representative of the Sanitary District.

Wherever the word "Contractor" is used herein, it shall be understood to mean the person or persons or co-partnership or corporation entering into the contract as party of the second part.

The following ordinance, passed by the Board of Trustees of the Sanitary District of Chicago, June 23, 1897, is hereby made a part of this contract, and the party of the second part agrees to comply with its provisions, and in case of violation thereof to be subject to the penalties therein authorized to be imposed:

*"Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

"SECTION 1.—That in the preparation of all future specifications for contracts for the construction of the Main Channel and auxiliary works, the Engineering Department shall provide that such contracts shall be executed in conformance with the law constituting eight (8) hours a legal day's work in all contracts under the Sanitary District of Chicago, and that, in the employment of labor, contractors shall be required and specifically agree to give preference to Union labor.

"SECTION 2.—That all contracts hereafter executed for the works of the Sanitary District of Chicago shall contain provisions constituting eight (8) hours a legal day's work, and forbidding the employment of any employee or employees for a longer period than eight (8) hours in any twenty-four (24) hours, and that said contract shall vest specific authority in the Police Department of the Sanitary District of Chicago to exercise supervision for the enforcement of this provision, and shall provide that the Board of Trustees of the Sanitary District of Chicago shall be empowered, in all cases of violation of said eight (8) hour law, to deduct and retain from any money accruing to said contractors a sum as liquidated damages at the rate of five dollars (\$5.00) per hour for each employee who shall be required to work in excess of eight (8) hours per day by any contractor on said Canal."

## SUBSTRUCTURE.

### GENERAL.

#### *Work Included.*

1. The work included under the contract for the substructure consists in removing from the site all of the superstructure, the abutments, piers, foundation piles and fenders of the old

bridge, and such a part of the present docks and approaches as is necessary for the completion of the new bridge, and furnish all labor and materials, except the steel or iron, and erecting, complete in place, the substructure as hereinafter specified and detailed on masonry sheet herewith, refilling such a part of the dock removed as directed by the Engineer, and the dredging of the channel of the river as hereinafter specified. And diverting sewer as shown on drawings and hereinafter specified. All steel or iron in the substructure, together with paint for same, will be furnished by the contractor for the superstructure, but the contractor for the substructure shall erect and paint such steel or iron in the field, as specified.

#### *Old Bridge.*

2. The bid for removal of the existing structure must cover as a lump sum the removal of the entire superstructure; and as a lump sum, the removal of the substructure, including all masonry in pier and abutments, and the existing approaches, as much as is necessary; the protection pier and the pulling of all piles entering into its construction; all other protections and protection piles, necessary docking, and the pulling of all piles in or about the center pier and abutments. Such white oak or burr oak piles as are found after pulling to be in good condition and the requisite size and length may be used in the new work. The superstructure of the old bridge and all of the old material in the substructure removed and unfit for use in the new work shall become the property of and must be removed by the contractor, the cost of removing the same to be covered in the price bid for removing old substructure and superstructure as specified.

#### *Plans and Specifications.*

3. The accompanying plans form a part of the specifications, and, in the event of any discrepancy between the plans and these specifications, the judgment of the Engineer shall be decisive thereon. The figured dimensions on the drawings are to be taken whenever they do not agree with the dimensions obtained by scaling from the drawings.

#### *Detail Plans.*

4. All detail plans required shall be made at the expense of the contractor, and shall be submitted to the Engineer for approval before beginning work. Such detail plans shall have a uniform size of twenty-six (26) inches by forty (40) inches, inside border lines, with a border margin of one-half (1/2) inch. When submitted for approval, three (3) complete sets of prints of such detail plans shall be sent to the Sanitary District of Chicago. The contractor shall furnish the Sanitary District of Chicago with six (6) complete sets and F. M. Montgomery & Co. with two (2) complete sets of these approved plans,

free of cost. No alterations of approved plans will be made by the contractor without the written consent of the Engineer. The approval of the Engineer will not relieve the contractor from the responsibility of errors thereon.

#### *Approval of Plans.*

5. All detail plans before accepted by the Engineer must be submitted to and meet the approval of Frank M. Montgomery & Co., who shall also have authority to inspect the erection of the work.

#### *Checking Plans.*

6. All of the accompanying plans shall be carefully checked by the contractor before beginning work. Should any errors be discovered, the Engineer's attention shall be called to the same and corrections made, after which the contractor shall be responsible for all errors which may occur or which may have occurred.

#### **QUALITY OF MATERIAL.**

##### *Piles.*

7. All foundation piles supporting masonry shall be Norway pine, and all others must be of white or burr oak. They must be sound and straight, not less than fourteen (14) inches at the butt nor less than nine (9) inches at small end, and of uniform taper. Piles for the piers are to be of such length that they may be driven, if possible, to rest upon the rock at the elevation shown on the plans.

##### *Timber.*

8. All timbers used in docks, anchors, sheeting, wales, fenders, etc., must be sound, straight and free from any defects which might impair its strength or durability, and be of such variety and dimensions as thereafter specified or shown on drawings.

##### *Broken Stone.*

9. All broken stone for concrete shall be as nearly as possible cubical in shape, free from dirt or other foreign substances, and, if screened, must also be free from flat chips or dust. Stones shall not be larger than two (2) inches in any direction, and in quality subject to the approval of the Engineer.

##### *Cement.*

10. The best Portland cement shall be used on this work, brand and quality to be subject to the approval of the Engineer. The weight per cubic foot of Portland cement shall be not less than one hundred (100) pounds. The development of tensile strength for Portland cement shall be not less than four hundred (400) pounds per square inch, after being exposed one (1) day in air and six (6) days in water. All lumpy, dirty or damaged cement shall be rejected; also damaged or short-weight packages.

##### *Sand.*

11. The sand shall be coarse, sharp and clean, free from all clay, loam or gravel, and of a quality approved by the Engineer.

##### *Brick.*

12. The brick for sewers shall be selected and of first grade of hard sewer brick, equal in quality to requirements of city ordinances.

#### **CLASS OF WORK.**

##### *Excavation.*

13. All foundations shall be prepared to receive the masonry by the contractor, who shall make excavation to such a depth and width sufficient to allow of the construction of the work herein specified. The contractor shall also, where necessary, supply and operate, free of cost, all pumps in order to keep the foundation excavation dry. The contractor shall provide drive, frame and place all sheet piling or other timber work necessary to the successful excavation and protection of the foundation excavation, and shall maintain the same until masonry shall have been built. Such material excavated as is necessary for filling the approaches shall be deposited as directed by the Engineer within a limit of 400 feet from the site of the excavation, free of all cost or expense to the Sanitary District of Chicago. All other material excavated from the foundations, except such as shall be needed for filling back of and around the masonry of the new bridge, shall be removed entirely from the bridge site and disposed of as the contractor may see fit, free of all cost or expense to the Sanitary District of Chicago; but none of the material so excavated shall be deposited in any navigable waters, save as permitted by the United States Engineer Department. All refilling ordered by the Engineer shall be done without extra cost to the Sanitary District. The contractor must remove the old docks, sidewalks and roadways, where it is necessary for the completion of the new bridge, and must do all the necessary filling behind the abutment walls and join the new and old work to the satisfaction of the Engineer.

##### *Piles.*

14. All piles must be driven by a steam hammer, unless otherwise directed by the Engineer, and if so directed by the Engineer, a follower shall be used in driving. If, in the opinion of the Engineer, any pile proves imperfect or becomes unfit for use under the hammer, or is not driven straight, it must be removed by the contractor without extra cost. If so directed by the Engineer, the piles shall have the bark removed. Should any of the piles raise or change their position after being driven, they shall be re-driven, if so directed by the Engineer, at the expense of the contractor. All piles must be cut level and at proper elevation. Payment for

piles must be made on the following basis: 1st: Per lineal foot for all piles delivered on the order of the Engineer, at the site of the work. 2nd: For all piles driven per lineal foot below the cut-off line, the prices designated on the bid.

#### *Sheet Piling.*

15. Sheet piling and bracing may be of any timber suitable for the purpose and shall be of such dimensions and placed as directed by the Engineer. Cofferdams are to be built around the piers where, in the opinion of the Engineer, it is necessary, sufficiently heavy and strong to permit the excavation for foundations to a depth of thirty (30) feet below Chicago datum, to be kept dry during all times during construction. Any piles which may be used in the construction of the cofferdam other than the sheet piling may be of any timber that will stand the driving and have the necessary strength to stand the strains to which they will be subjected. Upon the completion of the work, the cofferdams are to be removed by the contractor at his own expense.

#### *Cofferdam Filling.*

The material used for filling must be dry clay and gravel in about equal parts, the filling to be so done that these materials shall mingle uniformly throughout the mass, and the manner of placing in the coffer dam shall be as directed by the Engineer. This filling to be paid for per cubic yard measured in the coffer-dam.

#### *Concrete.*

16. All concrete used shall consist of one part Portland cement, three parts sand and five parts screened broken stone, bulk measurement. If unscreened broken stone be used, the proportions shall be one part cement, two parts of sand and six parts of broken stone, and the mass shall be turned over at least one hundred (100) times by a mechanical mixer. The proportions of coarse and fine material in unscreened stone must be uniform. If the Engineer will permit, the mixing of the concrete with screened broken stone may be done by hand on suitable platforms. The cement and sand shall first be thoroughly mixed dry, after which the stone, properly moistened, shall be added, with sufficient clean water to make the whole mass, when thoroughly mixed, a tenacious and quaking mixture, without surplus of water. The concrete shall be immediately deposited in the work in layers not over six (6) inches thick, each layer to be thoroughly and compactly tamped until the whole mass is perfectly solid and free mortar appears on the surface. No retempering shall be allowed. All loose stone and foreign material lying on the old concrete must be removed before laying any new concrete thereon. All dead concrete must be removed from the work. All tie rods and anchor bolts must be solidly set in mortar of the quality specified. The placing of anchors and

other metal work which must be bedded in the concrete is to be covered in the price bid for setting iron and steel in masonry.

#### *Mortar.*

17. All mortar used shall be of the cement and sand hereinbefore specified. When used for track girder protection, it shall be used in proportion of one part cement to four parts sand. For beds and joints it shall be mixed in proportions of one part cement and two parts sand, bulk measurement, and for pointing, plastering or setting anchors it shall consist of equal volumes of cement and sand. For water-tight lining and facing it shall consist of equal volumes of cement and sand. These ingredients shall be thoroughly mixed dry, when sufficient clean water shall be added to make a paste of the proper consistency, and must be used at once; No mortar shall be used that has set or become stiff, nor shall any retempering be permitted.

#### *Abutments.*

18. There will be two abutments of the dimensions and location shown on the accompanying plans. They will rest directly upon hard clay, or upon piles, as detailed on the plans herewith. Where piles are used, they shall be driven as specified, and out level at the elevations shown on the plans. If the ground on which the concrete is to be placed is soft, it shall be made compact by ramming cobble and broken stone in the same until it is solid and firm.

19. The anchorage columns, steel stiffening beams, tie rods, bolsters and anchor bolts shall be located and constructed as shown on the plans. The anchorages shall be held firmly and securely in place, while the concrete and stone work is being built up around them in layers, as specified, to the dimensions and form shown on the plans. The contractor shall make any and all templets which shall be called for by the Engineer, and place the same so as to secure accurate lines for setting any work that may require it. He shall set the anchorage columns, the track girders with bracing between or connected with them, and the track plates with utmost care. He shall also set any templets furnished by the superstructure contractor, and the cost of this work shall be included in the price to be paid for setting iron and steel in masonry.

#### *Water-tight Counter-weight Pits.*

20. The contractor shall build the abutments according to one of the two following methods proposed for securing water-tight counter-weight pits, as directed by the Engineer. The counter-weight pits and the outside of the abutments shall be faced with a cement mortar facing of four (4) inches thickness. There is also to be a six (6) inch layer of cement mortar at the top of the piles of abutments, as shown on the detail plans of the sub-structure. The cement mortar shall be of quality and materials herein-

before specified. The contractor shall guarantee that upon completion the counter-weight pits will not leak. The price per cubic yard for this cement lining is to be named in the bid. Or, if so ordered by the Engineer, the cement mortar lining of pits, facing of abutments and layer at top of piles shall be omitted and replaced by concrete and a steel lining for pits, furnished by the superstructure contractor, shall be erected as hereinafter specified by the substructure contractor; the price per pound extra for erecting this steel lining to be named in the bid.

#### *Steel Linings.*

21. If steel linings for pits are ordered by the Engineer, such linings shall be erected and secured to the masonry to resist water pressure, as shown on masonry sheet. This steel lining shall be erected, riveted and calked, and the anchors set, as the concrete is placed. The outside surfaces of the steel lining shall be coated with asphalt paint, as directed by the Engineer. Such paint shall be furnished by the superstructure contractor. The substructure contractor shall guarantee that these linings will not leak when completed.

#### *Flood Guards.*

22. The contractor shall make such provision along and around the tops of the piers and abutments where indicated on detailed plans, that a steel guard or protection of plates and angles may be readily and securely fastened there, if found necessary at some future time to protect the track girders and counter-weight pits from being flooded by high water. Provision has been made in the general plan for such a guard.

#### *Track Girder Protection.*

23. The track girders shall be protected by a steel trough composed of three-eighths ( $\frac{3}{8}$ ) inch plates and three by three by one-half ( $3 \times 3 \times \frac{1}{2}$ ) inch angles, where shown on detail plans, the intervening space being filled with Portland cement mortar, as specified. The price per cubic yard to be paid for this mortar is to be the same as the price for concrete named in the bid. The protection to the track girders shall be erected after the superstructure contractor has erected and riveted all braces to track girders or track girder bracing.

#### *Protection.*

24. The large corner clumps of the protections shall be fifty (50) foot oak piles, securely bound together with five (5) laps of three-fourths ( $\frac{3}{4}$ ) inch chain, spiked all around with six by one-fourth ( $6 \times \frac{1}{4}$ ) inch wrought iron spikes. The piles in front and flank aprons will be of oak, fifty (50) feet long and spaced as shown. Caps to be twelve by twelve ( $12 \times 12$ ) inch oak and wales of eight by twelve ( $8 \times 12$ ) inch oak, all secured as shown. Any temporary protec-

tion piles required shall be put in place and removed at the expense of the contractor.

#### *Refilling.*

25. Upon the completion of the masonry of the retaining walls, the roadways and sidewalks to the full width of wall shall be refilled by the contractor to these retaining walls, finishing the roadway and sidewalks of the approaches ready for traffic and to the satisfaction of the Engineer, without extra compensation. All filling to be done with good material, in layers, carefully tamped and watered to make the same solid and compact. All area or curb walls which may have been taken down or damaged by the contractor shall be replaced and connected to the abutments at his own expense.

#### *Docking.*

26. All docking along either bank of the river, wherever disturbed or damaged, shall be reconstructed by the contractor to the satisfaction of the Engineer. The same must butt against the new work in a workmanlike and substantial manner.

#### *Piers for Approach Spans.*

27. The contractor for the substructure of State Street bridge shall build such piers as may be required for north approach spans, and the price for this work will be the unit prices for excavation and concrete named in the bid.

#### *Removal of Old Bridge—Dredging.*

28. The contractor shall commence the work of removing the old superstructure as soon as he shall be notified by the Engineer, and shall thereafter proceed diligently to remove the center pier, protection pier, abutments, old piles, and do the channel dredging herein provided for. The contractor shall dredge the channel between dock lines for the entire length of the protection pier, unless otherwise ordered in writing by the Chief Engineer, to a depth of sixteen (16) feet at dock lines, increasing to twenty (20) feet below hydraulic grade line at forty (40) feet from the dock lines, the channel depth to be twenty (20) feet. The bid for dredging and removal of the material to be at unit price per cubic yard. No obstruction of any kind or nature shall be left in the above described limits in the channel. All material deposited during the progress of the work during this contract in the river or upon adjacent streets or grounds must, upon completion of the contract, be promptly removed by the contractor at his own expense.

#### *Sewers.*

29. The contractor, when making excavation, shall provide proper supports for present sewer, and where necessary to tear out old sewer he shall provide, during construction of piers, a temporary duct to empty into the river. The con-

tractor shall construct permanent sewers wherever so shown on plans, and properly connect same to city work, and such work must conform strictly to the requirements of the city ordinances. This work shall be covered in a lump sum named in the bid.

30. The contractor shall arch over and fill in old shaft of water tunnel, where such is indicated on plans, and the same shall be covered in lump sum named in bid. The materials for this work are to be the same as specified for sewers.

31. The contractor shall, during construction, maintain the present water pipes, sewer and gas mains, or conduits of any kind, that may be unearthed by him. This maintenance must be done in a manner satisfactory to the Engineer and to the Commissioner of Public Works of the City of Chicago.

32. No water shall be drawn from the fire hydrants until the necessary permit is procured.

#### *Examining Site.*

33. Prospective bidders for this work are required to carefully examine the existing structure to inform himself, or themselves, as to the magnitude and nature of the contemplated removals, and also the facilities for the delivery of new material at the site. No plea of ignorance of what is required, as a result of failure to make proper examinations, will in any case be accepted as a sufficient excuse for any failure or omission on the part of the contractor to fulfill in every detail all the requirements of this contract.

#### *Protection of Adjacent Structures.*

34. The contractor shall take all necessary precautions for the protection of walls and foundations of buildings or other structures contiguous to the excavation made for the foundations of this bridge, and shall keep the same safe throughout the period consumed in the erection of the structures covered by this contract, and shall leave the same in a permanently safe and secure condition. All to be done by the contractor free of cost or liability for loss or damages on the part of the Sanitary District of Chicago.

#### *Measurements.*

35. Measurements of all masonry shall be by the cubic yard, and all payments shall be made upon the actual cubical contents of the completed masonry within the lines as shown on the plans. Measurements of all materials shall be in accordance with the units of measurements as herein specified.

#### *Erection.*

36. The contractor shall furnish all staging and false work, shall erect and adjust all the metal work in substructure, shall furnish and put in place all templates to accurate lines, timber guards, and set and secure in place all masonry bolts. The contractor shall assume all risks of

accidents to men or material prior to the acceptance of the finished structure. The contractor must also remove all false work, piling and other obstructions, or unsightly material produced by his operations.

#### *Final Acceptance.*

37. Any material or workmanship which does not satisfy the requirements of these specifications may be rejected by the Engineer at any time before the final acceptance of the work, and the contractor shall make good all deficiencies at his own cost. The fact that the authorized inspectors have inspected said material or workmanship shall not make the Sanitary District liable for extra cost for replacing the same with material or workmanship accepted by the Engineer on final acceptance.

#### *GENERAL CONDITIONS.*

38. The drawings furnished form a part of these specifications, and any work shown therein shall be executed the same as if mentioned herein. The work is to be made complete and to the satisfaction of the Engineer, notwithstanding any omissions in plans or specifications.

#### *Changes in Plans.*

39. The quantity of work and material figured from the plans is approximate, and the Sanitary District reserves the right to make any changes in the plans or specifications which may be deemed necessary, either before or after beginning the construction thereof; provided, that if alterations are made, the general character of the work as a whole is not changed thereby. If such alterations diminish the quantity of work to be done, they shall not constitute a claim for damages nor for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract. Notice of change of plan must be given to the contractor in writing, and it is expressly agreed that no alterations or additions or extra work are to be paid for, unless so directed in writing.

#### *Extra Work.*

40. All claims for extra labor or material furnished by the contractor, or for damages from any cause whatever, must be reported to the Engineer at the time such labor or material is furnished or such damages occur, and they must also be presented to him in writing at the end of the month; provided that nothing shall be paid for as extra work that can be classified under any of the heads upon which prices are fixed by this contract. Whenever work is required to be done, which is not now contemplated or covered by the prices hereinafter given, the Committee on Engineering shall fix such prices for the work as they shall consider just and equitable, and the contractor shall abide by such prices, provided



he enters upon such work with a full knowledge of the prices so fixed by the said Committee; but if the contractor declines executing said work at the prices fixed by said Committee, then the Sanitary District may enter into contract with any person or persons for its execution the same as if this contract had never existed; and if extra work or work not provided for in this contract is performed by the contractor before prices have been fixed for such work, then the Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said contractor shall accept such prices in full satisfaction of all demands against the Sanitary District for said extra work; provided, that if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work, with fifteen (15) per cent. added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

#### *Responsibility of Contractor.*

41. It is further agreed that in all cases of question or dispute arising or growing out of this contract in any way regarding the cost or value of extras, variations, allowances, deductions, or the amount of damages in any manner growing out of the violation of this contract, the decision of the Engineer shall be final and binding on both parties hereto. All work provided for in this contract is to be done under the direction and supervision of the Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without charge therefor, to enable the Engineer to properly give lines and grades and to inspect and measure the work from time to time.

42. All materials of whatever kind to be used in the work will be subject to the inspection and approval of the Engineer. All unsuitable or rejected materials must be removed from the premises at once by the contractor.

43. All work shall be subject to constant inspection before acceptance. Any unfaithful or imperfect work that may be discovered before its final acceptance shall be corrected immediately, and any unsatisfactory material used in the work shall be rejected and removed on the requirement of the Engineer, notwithstanding they may have been overlooked by the inspector and estimated. The inspection of any work shall not relieve the contractor of any of his obligations to perform sound work, as herein

specified, and all work which, during its progress and before its final acceptance, may become damaged from any cause, shall be removed and replaced by good and satisfactory work.

44. The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to sublet all or any part of it; it being distinctly understood and agreed that the subletting of the work covered by this contract, or any part thereof, shall, after thirty (30) days' notice, work a forfeiture of the contract at the option of the Sanitary District.

45. During all periods of construction the contractor shall uninterruptedly keep open for navigation a channel of sufficient width in the river to permit continuous traffic on the same.

46. The contractor shall conform to all the ordinances of the City of Chicago and the regulations imposed by the United States Government in any manner affecting this work, and he will release the Sanitary District of Chicago from all responsibility for loss or damage occasioned by delays or inconveniences due to the navigation of the river by vessels of any sort or description or for other causes not now foreseen. He shall also be responsible for and make good all damages to adjoining property which may be occasioned by him or his work in the execution of this contract.

47. The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case the contractor fails to comply with the provisions of this contract as to progress and character of work, he shall be duly notified in writing, and thirty (30) days after the giving of said notice the Sanitary District may declare this contract forfeited, if there is a substantial failure to comply with its provisions.

#### *Tools.*

48. The contractor is to furnish all the tools of every description, including pumps, cars and tracks, boats, barges and tugs necessary to the full and complete carrying out of this contract, and on completion of the work is to remove all tools, building and materials of all kinds from the sight of the bridge.

#### *Precautions.*

49. Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, shall be taken by the contractor.

#### *Workmen.*

50. The contractor shall employ competent

foremen and laborers, and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work will be employed where special skill is required, and in the employment of men preference shall be given to union laborers. It is especially understood and agreed that eight (8) hours shall constitute a day's work, and that no workman shall be employed or required to work more than eight (8) hours out of any twenty-four (24) hours, and no work in excess of that time shall be allowed. In the event of any violation of the above eight (8) hour provision, it is agreed hereby that the said District shall, and that it is duly authorized to retain from any money due, or to become due, at any time from it to the contractor, as liquidated damages, the sum of five dollars (\$5) per hour for each hour that any employee shall be required to work in excess of eight (8) hours per day, pursuant to the terms and conditions of the ordinance adopted June 23rd, 1897, attached hereto.

#### *Patents.*

51. It is further agreed that the contractor shall indemnify, keep and save harmless said Sanitary District from all liabilities, judgments, costs, damages and expenses which may in anywise come against said Sanitary District, or which may result on account of any infringement of any patent by means of the use of any materials, machinery, device or apparatus used in the performance of this contract, or of designs furnished by the contractor and accepted by the Sanitary District, except the patents on a bridge design of the Scherzer type controlled by Frank M. Montgomery & Co., and in the event of any claim or suit or action at law or equity of any kind whatsoever being made or brought against said Sanitary District, then the Sanitary District shall have the right to retain a sufficient amount of money in the same manner and upon the same conditions as hereinafter in the next following clause in this contract provided.

#### *Damages.*

53. If any damage shall be done by the contractor or by any person or persons in his employ to the owner or occupants of land, or to any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, the Engineer shall have the right to estimate the amount of said damage, and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for said damages shall be deducted from the money due said contractor, under this contract. Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself, or his employees, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for, or

on account of, any such injuries, or such damage received or sustained by any person or persons, by or from said contractor, servants, agents or employees, in the execution of said work; or by or in consequence of any negligence in guarding the same; or by or on account of any omission or act of said contractor, his agents or employees; and the said contractor further agrees that so much of the money due to him under and by virtue of this contract as shall be considered necessary by the Board of Trustees of the Sanitary District may be retained by the said Sanitary District until such suit or claim for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

#### *Time.*

53. The contractor shall commence the work of removal of old superstructure as soon as he shall be notified to do so by the Engineer, and shall thereafter proceed diligently to remove the center pier, protection pier and abutments, and prosecute the building of the structure herein specified for and to do the channel dredging as herein provided for, so as to complete the same on or before the first day of April, 1902.

#### *Penalty.*

54. The contractor hereby agrees to forfeit as liquidated damages for any non-compliance with, or non-fulfillment of the provisions of this contract within the time specified fifty dollars (\$50) per day for each day beyond April 1st, 1902, within which the work hereby provided is to be completed, time being an essential part of this contract.

#### *Substructure Prices.*

55. In consideration of the said work being carried on and completed in the time and manner as hereinbefore specified, the said Sanitary District agrees to pay to the said contractor for the substructure the following amounts, and the said contractor agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit:

(a) For each cubic yard of excavation, price to include all necessary refilling as specified, the sum of forty (40) cents.

(b) For sheet piling and bracing, per 1,000 feet, B. M. (price named to include all spikes, bolts or other iron used in constructing same), as per terms of this contract, the sum of thirty-five dollars (\$35.00).

(c) For oak timber in wales, fenders in pier protections and docks, per 1,000 feet, B. M. (price named to include all spikes, bolts, the rods, bands or other iron to be used in constructing same), as per terms of this contract, the sum of forty dollars (\$40.00).

(d) For pine foundation piles, delivered at

the site of the work, as specified, per lineal foot, the sum of fifteen (15) cents.

(e) For oak protection piles, delivered at the site of the work, as specified, per lineal foot, the sum of twenty (20) cents.

(f) For piles driven in foundations, as specified, per lineal foot, the sum of ten (10) cents.

(fa) For each cubic yard of clay and gravel as specified for coffer-dam filling, the sum of forty (40) cents.

(g) For piles driven in protection and docks, as specified, per lineal foot, the sum of eight (8) cents.

(h) For each cubic yard of Portland cement concrete, as specified, the sum of five (\$5.00) dollars.

(i) For each cubic yard of cement facing for counter-weight piers, and for abutments, as specified, the sum of nine (\$9.00) dollars.

(k) For erecting, riveting, caulking and painting water-tight steel lining for counter-weight piers, as specified, the sum of three quarter (¾) cent per pound.

(l) For erecting, riveting, caulking and painting protections to track girders, in place, as specified, the setting of all anchor columns, anchor rods, tie rods, beams, track girders, track plates and bracing, in fact, all iron or steel set in masonry, as specified, the sum of one-half (½) cent per pound.

(m) For removal of the present superstructure, as specified, the sum of one thousand (\$1,000.00) dollars.

(n) For the removal of the abutments with their protection docks, center-pier and its protection and the approaches of the present superstructure, as specified, the sum of two thousand (\$2,000.00) dollars.

(o) For the removal of old sewers, maintaining flow during construction of bridge and reconstructing the diverted sewers, the sum of one thousand (\$1,000.00) dollars.

(p) For each cubic yard of dredging in channel, including the removal of dredged material, the sum of twenty (20) cents.

The prices proposed must include all royalties for patents, or patented material or appliances used in the construction of the work described in the specifications and agreements; and before final payment is made, the contractor shall furnish a satisfactory guarantee against all claims; provided, however, that this does not apply to the patented design of the bridge of the Scherzer Rolling Lift Bridge Company, the right to use the same having been purchased by the Sanitary District.

56. It is agreed by the party of the first part

that on or before the 10th and 25th days of each month during the progress of the work and subject to the provisions hereinbefore specified under the head of "time," payment will be made to the said party of the second part to the amount of eighty-seven and one-half (87½) per cent. of the contract price of the substructure of the approximate amount of work done during the previous half month, upon written certificate from the Engineer that such approximate amount of work has been done during that period; twelve and one-half (12½) per cent. being reserved until the completion and acceptance of the whole work.

57. Upon the completion of the substructure in accordance with the specifications and contract, to the full satisfaction of the Engineer, and upon the inspection of same and the issuance of the final certificate by the Engineer, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to said second party by the said certificate of said Engineer, including the twelve and one-half (12½) per cent. reserved.

58. It is further agreed by the said party of the second part that if the work to be done under this contract on the substructure shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or if at any time the Engineer shall be of the opinion and shall so certify in writing to the said party of the first part that said work, or any part thereof, is unnecessarily and unreasonably delayed, or that the contractor is willfully and persistently violating any of the conditions or covenants of this contract, or is not fulfilling said contract in good faith, the said party of the first part shall have the power to notify the said contractor to discontinue all work, or any part thereof, as may be designated by the said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams and to obtain such machinery, implements and tools and to purchase such material as the said Engineer may deem necessary to complete the work herein described, or any part thereof. And, in so doing, said Engineer may use such tools, implements and materials as may be found upon the line of work. The cost of doing such work by the said Engineer shall be charged to the said contractor, and the expense so charged shall be deducted and paid by the said party of the first part out of such moneys as may be due, or may at any time thereafter become due to said contractor, under and by virtue of this contract, or any part thereof, so far as the same shall suffice therefor; and the balance, if any, shall be paid by said contractor on demand. Should the amount remaining unpaid of the con-

tract price not suffice therefor then said contractor and his bondsmen shall be held liable for the deficiency. If at any time during the progress of said work the said contractor shall fail or neglect to pay for labor performed or material furnished upon said work for ten (10) days after it shall have become due, then the party of the first part shall have power to pay for such labor or for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind used or consumed in, upon or on account of the work covered by this contract; the party of the first part shall have the power to pay for such labor or materials, explosives, machinery, appliances, fuel, provisions or supplies of whatsoever sort or kind, out of moneys that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor. In any such case the party of the first part is hereby authorized and empowered by the party of the second part to ascertain by its Engineer the amounts due or owing from said contractor to any laborer or laborers, or to any person or persons, for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind consumed upon, in or on account of the work covered by this contract in such manner and upon such proofs as the said Engineer may deem sufficient.

*Contractor's Bond.*

59. The contractor shall furnish bond in the sum of fifteen thousand (\$15,000) dollars for the substructure of this bridge, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned upon the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of the said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten (10) days notice thereof in writing, require said contractor to furnish a new and additional bond in place of the bond so having become insufficient or worthless.

*Final Payment.*

60. The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until all of the stipulations hereinbefore mentioned are complied with, and the said Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money

as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work, should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

IN WITNESS WHEREOF, On the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set its hand and seal.

THE SANITARY DISTRICT OF CHICAGO,

[SEAL]

By ALEX. J. JONES,  
President.

Attest:

LOUIS C. LEGERER,  
Acting Clerk.

LYDON & DREWS COMPANY,

[SEAL]

WM. A. LYDON,  
Pres't.

HARRY C. LYDON,  
Sect'y.

SUBSTRUCTURE FOR HARRISON STREET  
BRIDGE.

*The contract and specifications for the substructure of the Highway Rolling Lift Bridge for the Sanitary District, crossing the South Branch of the Chicago River at Harrison Street, in the City of Chicago, are identical in every respect with those for the substructure of the Highway Rolling Lift Bridge crossing the South Branch of the Chicago River at State Street, in the City of Chicago, as printed in the Proceedings of this date on pages 7377-7386, except that part of these contracts pertaining to dates, special price for the work, etc., which parts are as follows:*

SANITARY DISTRICT OF CHICAGO.

Contract and Specifications for the Substructure of a Highway Rolling Lift Bridge of the Scherzer type, crossing the South Branch of the Chicago River, in the City of Chicago, to be built for the Sanitary District of Chicago.

*This Agreement, Made and entered into this fourteenth (14th) day of August, A.D. 1901, by and*

between the Sanitary District of Chicago, of the first part, and Lydon & Drews Company, a corporation organized and existing under and by virtue of the laws of the State of Illinois, of the second part.

4—

**WITNESSETH:** That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the Highway Rolling Lift Bridge for the Sanitary District of Chicago, crossing the South Branch of the Chicago River at Harrison Street in the City of Chicago.

#### *Substructure Prices.*

55. In consideration of the said work being carried on and completed in time and manner as hereinbefore specified, the said Sanitary District agrees to pay to the said contractor for the substructure the following amounts, and the said contractor agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit:

(a) For each cubic yard of excavation, price to include all necessary refilling as specified, the sum of forty (40) cents.

(b) For sheet piling and bracing, per 1,000 feet, B. M. (price named to include all spikes, bolts or other iron used in constructing same), as per terms of this contract, the sum of thirty-five dollars (\$35.00).

(c) For oak timber in wales, fenders in pier protections and docks, per 1,000 feet, B. M., (price named to include all spikes, bolts, tie rods, bands or other iron to be used in constructing same), as per terms of this contract, the sum of forty dollars (\$40.00).

(d) For pine foundation piles, delivered at the site of the work, as specified, per lineal foot, the sum of fifteen (15) cents.

(e) For oak protection piles, delivered at the site of work, as specified, per lineal foot, the sum of twenty (20) cents.

(f) For piles driven in foundations, as specified, per lineal foot, the sum of ten (10) cents.

(fa) For each cubic yard of clay and gravel

as specified for coffer-dam filling, the sum of forty (40) cents.

(g) For oak piles driven in protection and docks, as specified, per lineal foot, the sum of eight (8) cents.

(h) For each cubic yard of Portland cement concrete, as specified, the sum of five dollars (\$5.00).

(i) For each cubic yard of cement facing for counter-weight piers, and for abutments, as specified, the sum of nine dollars (\$9.00).

(k) For erecting, riveting, caulking and painting water-tight steel lining for counter-weight piers, as specified, the sum of three-quarter (¾) cents per pound.

(l) For erecting, riveting, caulking and painting protections to track girders, in place, as specified, the setting of all anchor columns, anchor rods, tie rods, beams, track girders, track plates and bracing, in fact all iron or steel set in masonry, as specified, the sum of one-half (½) cent per pound.

(m) For the removal of the present superstructure, as specified, the sum of six hundred dollars (\$600).

(n) For the removal of the abutments with their protection docks, center-pier and its protection and the approaches of the present superstructure, as specified, the sum of six hundred dollars (\$600).

(o) For the removing of old sewers, maintaining flow during construction of bridge and re-constructing the diverted sewers, the sum of one thousand dollars (\$1000).

(p) For each cubic yard of dredging in channel, including the removal of dredged material, the sum of twenty (20) cents.

#### COMMUNICATION FROM THE SOUTH CAROLINA INTER-STATE AND WEST INDIAN EXPOSITION COMPANY.

The Clerk presented a communication from the South Carolina Interstate and West Indian Exposition Company inviting the Board of Trustees to make an exhibit at the Exposition to be opened on December 1, 1901, at Charleston, S. C., being one month after the close of the Pan-American Exposition at Buffalo.

The above communication was, by unanimous consent, referred to the Committee on Engineering.

**PRESENTATION OF BIDS FOR THE SALE  
OF SECOND-HAND PILES, PLANKING  
AND SQUARE TIMBER.**

The President announced that, in conformity with the advertisement of July 24, 1901, inviting proposals for the sale of a large quantity of second-hand piles, planking and square timber at the yards of the District, at Robey Street, the Board would now proceed to open the bids received by the Clerk.

The Clerk thereupon reported that but one bid had been received, as follows:

*Sanitary District of Chicago, Alex. J. Jones,  
President:*

**GENTLEMEN**—Referring to your advertisement of July 24th, 1901, which is hereto attached, I will give for within mentioned material eight hundred (\$800.00) dollars, and comply in every way with your proposal.

Attached hereto find five hundred (\$500.00) as first payment in case this bid is accepted.

Yours truly,

**HARRY A. DUBIA.**

652 Blue Island Avenue.

Mr. Cloldt, seconded by Mr. Carter, moved that the bid received be rejected as being too low; and that the Clerk

of the Board be directed to return the cash deposit of \$500.00 accompanying same to the bidder.

The roll being called, it was so ordered.

*Yeas*—Messrs. Braden, Carter, Cloldt, Jones, Legner, Smyth and Webb—Seven.

*Nays*—None.

**ADJOURNMENT TO SPECIAL TIME.**

Mr. Smyth, seconded by Mr. Braden, moved that the rules relating to the holding of regular meetings on the second and fourth Wednesday of each month, from May 1st to October 1st, be suspended, and that when the Board adjourns it adjourns to meet on Wednesday, September 11th, 1901, at 2 o'clock P. M.; unless, in the discretion of the President, it shall be necessary to call a special meeting of the Board before said date.

The roll being called, the motion was adopted by the following vote:

*Yeas* — Messrs. Braden, Carter, Cloldt, Jones, Legner, Smith and Webb—Seven.

*Nays*—None.

On motion of Mr. Smyth, seconded by Mr. Braden, the Board adjourned.

**L. C. LEGNER,**

*Acting Clerk.*

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

AUGUST 28, 1901.

OFFICIAL RECORD.

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

SPECIAL MEETING.

A special meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building Wednesday, August 28, 1901, at 2 o'clock P. M., pursuant to call.

The President, Mr. Jones, took the chair, and the meeting being called to order, there were then

*Present*—Messrs. Braden, Cloldt, Jones, Legner and Webb—Five members.

*Absent*—Messrs. Baker, Carter, Smyth and Wenter—Four members.

Mr. Baker arriving subsequently.

CALL FOR SPECIAL MEETING.

The clerk then read the call for a special meeting, as follows:

CHICAGO, August 27, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—At the request of Presi-

dent Alexander J. Jones, and in accordance with Rule 4 of the Rules and Regulations, I hereby call a special meeting of the Board of Trustees of the Sanitary District of Chicago, to be held in the rooms of the Board, Security Building, Chicago, Ill., on Wednesday, August 28, 1901, at 2 o'clock P. M., for the purpose of considering and passing on the payment of current pay rolls and vouchers of the District, and also for the purpose of receiving and passing on reports of the various committees of the Board of Trustees and for such other business as may properly come before said meeting.

Very respectfully yours,

A. R. PORTEE,

*Clerk.*

(One enclosure.)

MINUTES.

On motion of Mr. Cloldt, seconded by Mr. Legner, the minutes of the regular meeting held August, 14, 1901, were approved as printed.

## VOUCHERS.

The Clerk presented the following vouchers:

## PAY ROLLS.

Engineering Department (Chief Engineer's Roll, August, 1901).....	\$ 2,962 50	
Engineering Department (Division of Construction Roll, August, 1901).....	3,076 25	
Engineering Department (Special Service Roll, August, 1901).....	318 80	
		\$ 6,962 55
Clerical Department (Clerk's Roll, August, 1901) .....		983 84
Law Department (Attorney's Roll, August, 1901).....		1,976 68
Treasury Department (Treasurer's Roll, August, 1901).....		375 00
General Account (General Roll, August, 1901).....	\$ 205 00	
General Account (Special Roll, August, 1901).....	310 00	
General Account (Trustees' Roll, August, 1901).....	2,383 34	
		2,848 34
Police Department (Marshal's Roll, August, 1901).....		1,733 28
Maintenance Account (Controlling Works, August, 1901).....		550 00
Total.....		\$ 15,369 19

## CONSTRUCTION VOUCHERS.

Lydon & Drews Company (Chicago River Improvement).....	\$ 7,503 13	
Lydon & Drews Company (Canal Street Bridge, August 27, 1901).....	5,001 50	
Lydon & Drews Company (Main Street Bridge, August 15, 1901).....	2,444 31	
Lydon & Drews Company (Main Street Bridge, August 15, 1901).....	2,115 59	
Lydon & Drews Company (Pan Handle Temporary Bridge, Sec. "O").....	500 00	
Page & Shnable (Ashland Avenue Bridge, August 15, 1901).....	3,177 04	
Page & Shnable (Ashland Avenue Bridge, August 15, 1901).....	276 22	
Hayes Bros. (excavation, (Sections "N" and "O")).....	10,500 00	
Heldmaier & Neu (Section 17, August 15, 1901).....	5,327 00	
		36,845 19

## CLERICAL DEPARTMENT.

American Water Company (water).....	6 75
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## LAW DEPARTMENT.

American Water Company (water).....	\$ 6 75	
John S. Runnells (services, General Counsel, August, 1901).....	416 67	
James Todd, Attorney (services, extra stenographer).....	20 00	
James Todd, Attorney (expense).....	228 10	
		671 53
Grand total.....	\$ 52,892 65	

Mr. Legner, seconded by Mr. Webb, moved that the vouchers as read and shown above be approved and ordered paid.

The roll being called it was so ordered.

*Yeas*—Messrs. Baker, Braden, Cloldt, Jones, Legner and Webb—Six.

*Nays*—None.

RESOLUTION ORDERING THE PAYMENT OF AUGUST SALARY TO THE WIDOW OF HUGH CURRAN, DECEASED.

Mr. Legner presented, and seconded by

Mr. Webb, moved the adoption of the following resolution:

WHEREAS, Hugh Curran, a faithful and efficient officer of the Police Force of the Sanitary District of Chicago, died at the County Hospital on the 20th inst.; therefore, be it

*Ordered by the Board of Trustees, That the sum of \$33.33, salary of said Curran for the month of August, 1901, be paid to the wife of the deceased.*



The roll being called the resolution was adopted:

*Yeas*—Messrs. Baker, Braden, Cloldt, Jones, Legner and Webb—Six.

*Nays*—None.

#### MONTHLY REPORT OF THE ENGINEERING DEPARTMENT.

The Clerk presented the report of the Engineering Department for the month of July, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

CHICAGO, August 14, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith present the report of the Engineering Department for the month of July, 1901, giving the detailed operations of the same.

The value of construction work done was \$64,349.40. Vouchers were issued on this account to the amount of \$59,895.08.

The engineering expenses for the month were \$15,276.05, divided as follows: Salaries, \$8,627.34; supplies, etc., \$3,648.71. Details of the above figures are given in tabulated statements submitted herewith.

*Chicago River*—The contractor for the dredging of the river worked one dredge during the month, making 16 feet of water at the dock lines and 26 feet, fifty feet out from the dock lines. The work was finished from Van Buren Street to Harrison Street and from Sixteenth Street to Stewart Avenue, and at the end of the month the work of finishing the stretch between Twelfth and Sixteenth streets was begun. The only dock construction done during the month was the cutting off of the corner between the river and the slip at Armour Elevator "F", just north of the Air Line Railroad Bridge at Sixteenth Street.

At the end of the month, the contractor for the rock work in the South Branch had finished the Channel 60 feet wide and about 450 feet long down to a grade of -21. The final estimate for this work was not rendered.

The work on the C. T. T. Railroad Company's Bridge near Taylor Street consisted of the following: On the 3rd, the work of riveting was finished with the exception of tail pieces and laterals; on the 19th, painting was completed with the exception of tail pieces and laterals; on the 22nd, the west leaf was lowered; on the 23rd, both leaves were lowered and the machinery found to work well; on the 29th, the work of riveting laterals in floor was completed, both leaves were lowered in place and the center lock found to meet properly.

The contractor for the substructure of the Canal Street Bridge drove piles for the foundation of the south abutment and piers and drove piles and sheeting for the coffer dams on both sides of the river. At the end of the month the south coffer dam was practically completed and one system of bracing was placed.

The contractor for the Main Street Bridge continued work in the south coffer dam and at the end of the month had it pumped out and five tiers of horizontal bracing were put in place and excavation for the foundations was begun. The work was delayed considerably on account of having to place more bracing to hold the dam in place than had been anticipated. The new shaft on the north side was completed and the tunnel connections between the new shaft and the old tunnel to within seven feet of the old shaft, when water and quicksand commenced to flow into the new tunnel from around the outside of the old shaft. The work had to be abandoned until a coffer dam could be built to shut off this water and quicksand, there being a stratum of this sand about 12 feet thick in this locality.

The contractors for the Ashland Avenue Bridge finished the excavation for the north abutment at the end of the month and commenced concreting. The excavation of the by-pass and all the material on the river side of the south piers was taken out by the Lydon & Drews Company, 24½ cents per cubic yard being paid for material in the river and 44½ cents per cubic yard for that portion between the abutment and piers.

*Sections "O" and "N"*—The work under contract with Hayes Brothers for the unfinished portion of the Main Channel on

these sections has not yet been started. Dock lines on the north side of the Channel were established and the steel monuments were set in concrete at the different points. Ranges showing the line of full width channel were also put up.

The several railroad companies in interest at the Pan Handle Crossing of the Main Channel did more or less work on their new tracks during the month. The Union Switch & Signal Company had a force working on the interlocking system south of the bridge during the month. No work was done in connection with the removal of the remaining portions of the temporary bridges at this point.

A boat-house 18 x 45 feet was constructed in the slip west of the Robey Street warehouse; the boilers on the ground east of the warehouse were roofed over and a dust and moth proof room was partitioned off in the warehouse for the purpose of storing bedding, linen, etc., from the steamer "Juliet."

*Section "K"*—On the 8th the bank under the spur track at the west end of the south abutment of the Belt Railway Company's bridge slid down about twenty-five feet and was repaired by the company in interest.

*Section 15*—Work was continued on the water power plant at the Controlling Works at Lockport, as follows: Placing and setting of girders for concrete arches, repairing machine shop floor with concrete, and excavation for wall on the west side of the Tail Race. The quantity of work done is as follows: Concrete for arches, 42 cubic yards; concrete machine floor, 28 cubic yards; and 200 cubic yards of wall excavation.

*Section 17*—The work done during the month by the contractors for this Section was as follows: The remantling of dredge and repairs on dipper was continued until the 15th; tug used on force account removing material under the Ruby Street Bridge completed the work on the 13th; on the 15th the dredge commenced excavating the coffer dam at the old Tow Path Bridge and continued until the 27th, at which time the work was completed. On the 29th excavation in the basin north of Ruby Street was resumed and continued to

the end of the month. The plant employed on this section consisted of one dredge, one tug, three scows and one steam derrick.

*Telephone Line*—The heavy thunderstorms in the early part of the month did considerable damage to the telephone line. Several poles were struck by lightning and were replaced by new ones. The damage done to the instruments at both ends of the line were repaired and lightning arresters were put in. About 1,400 feet of copper wire was stolen from the line on the 31st which was replaced with iron wire.

In the Drafting Department the following drawings, etc., were made: A profile of the C., S. F. & C. Ry. near Joliet showing final grade; plat of right of way required for the purpose of widening the Chicago River between Harrison and Van Buren Streets; profile and cross section showing flow lines, areas and velocities of the Chicago River and Main Channel; a small scale map of the Sanitary District, and a plat and description of Tracts 122-125 of south bank of Chicago River east of Halsted Street.

The plans for the Eighteenth Street Bridge have received final checking and were approved; the shop plans for the substructure metal, approach metal and for machinery of the Main and Canal Street Bridges were checked and approved; the checking of the plans for the Polk Street Bridge was continued, and some miscellaneous work connected with all the bridges proposed or undergoing construction was carried on.

Besides the work reported above, the Engineering Corps were principally engaged in taking flow measurements and in computing current and final estimates. Soundings were also taken from the 1st to the 18th around Henry and Copperas Creek Dams in the Illinois River.

I estimate that the expenses of this Department for the month of August will be \$100,000.00.

Respectfully submitted,

(Signed)

ISHAM RANDOLPH.

*Chief Engineer.*

**SANITARY DISTRICT OF CHICAGO — ENGINEERING DEPARTMENT.**  
**CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF JULY, 1901.**

CLASSIFICATION.	ENGINEERING EXPENSES			Construc- tion.	Capital- ization.
	Salaries.	Supplies, Etc.	Totals.		
Maps and Plans for General Use.....	\$ 354 64	\$ 12 97	\$ 337 61	.....	.....
Right of Way.....	244 90	21 79	266 69	.....	.....
Hydraulic Measurements.....	955 16	198 49	1,154 74	.....	.....
Mortar, Sand and Cement Tests.....	248 75	18 83	267 58	.....	.....
Photographs of Works.....	.....	2 80	2 80	.....	.....
Chicago River Expert Commission.....	.....	7,500 86	7,500 86	.....	.....
Chicago River, Dredging, Docking, etc.....	1,613 61	134 09	1,747 70	\$23,009 87	.....
State Street Bridge, Chicago River.....	85 79	12 58	98 37	.....	.....
Randolph Street Bridge, Chicago River.....	110 63	10 69	121 32	.....	.....
Harrison Street Bridge, Chicago River.....	85 79	12 33	98 12	.....	.....
Polk Street Bridge, Chicago River.....	40 10	.....	40 00	.....	.....
Taylor Street Bridge, Chicago River.....	.....	1 11	1 11	.....	.....
C. T. T. R. R. Co.'s Bridge, Chicago River.....	398 75	113 00	461 75	.....	.....
Eighteenth Street Bridge, Chicago River.....	89 17	2 84	92 01	6,000 00	.....
Canal Street Bridge, Chicago River.....	308 75	154 08	522 83	6,261 50	.....
Main Street Bridge, Chicago River.....	463 91	197 60	661 51	4,291 96	.....
Ashland Avenue Bridge, Chicago River.....	369 08	89 11	458 19	6,206 11	.....
Main Channel and River Diversion Excavation, etc.....	290 00	53 24	315 34	.....	.....
Southwest Boulevard Bridge, Main Channel, Section "O".....	13 34	.....	13 34	69 26	.....
Pan Handle Temporary Bridge, Subway under Pan Handle Tracks.....	.....	.....	.....	545 32	.....
Pan Handle Permanent Bridge, Main Channel, Section "O".....	170 00	3 00	153 00	1,539 20	.....
Belt Railway Company of Chicago Permanent Bridge, Main Channel, Section "K".....	50 00	.....	50 00	82 47	.....
Disposal Works and Joliet Project.....	645 70	106 20	771 90	9,895 34	.....
C. I. & P. Ry. Co.'s Permanent Bridge, Section 18.....	.....	.....	.....	.....	\$ 9,763 40
Thirty-ninth Street Conduit.....	119 38	.....	119 38	.....	.....
Totals.....	\$6,627 34	\$8,648 71	\$15,276 05	\$59,895 08	\$ 9,763 40

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—VALUES.  
Amount Earned During July, 1901.

DESIGNATION.	CHICAGO RIVER.		MAIN CHANNEL.		Controlling Works.	Joliet Project.	Totals.
	Dredging, Docking, Etc.	Bridges.	Temporary Bridges.	Permanent Bridges.			
Chicago River, dredging, docking, etc.	\$28,543 00	.....	.....	.....	.....	.....	\$ 28,543 00
Section "O".....	.....	.....	\$ 545 32	.....	.....	.....	545 32
Controlling Works.....	.....	.....	.....	.....	\$ 1,935 37	\$ 6,413 88	1,935 37
Section 17.....	.....	.....	.....	.....	.....	67 10	67 10
Section 18.....	.....	.....	.....	.....	.....	.....	.....
Eighteenth Street Bridge, Chicago River.....	.....	\$ 6,000 00	.....	.....	.....	.....	6,000 00
Canal Street Bridge, Chicago River.....	.....	7,156 00	.....	.....	.....	.....	7,156 00
Main Street Bridge, Chicago River.....	.....	4,975 10	.....	.....	.....	.....	4,975 10
Ashland Avenue Bridge, Chicago River.....	.....	7,092 70	.....	.....	.....	.....	7,092 70
Southwest Boulevard Bridge, Main Channel, Section "O".....	.....	.....	.....	\$ 69 26	.....	.....	69 26
Eight-track Bridge, Main Channel, Section "O".....	.....	.....	.....	1,539 20	.....	.....	1,539 20
The Belt Railway Company's Bridge, Main Channel, Section "K".....	.....	.....	.....	82 47	.....	.....	82 47
Totals.....	\$28,543 00	\$25,153 80	\$ 545 32	\$ 1,690 83	\$ 1,935 37	\$ 6,480 98	\$ 64,349 40

## SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—QUANTITIES.

*Amount Done During July, 1901.*

DESIGNATION.	Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Masonry and Concrete. Cu. Yds.	Piles. Lin. Ft.
Chicago River, dredging, docking, etc.....	62,000	2,175	.....	.....
Section 17.....	7,000	500	.....	.....
Canal Street Bridge, Chicago River.....	300	.....	.....	10,000
Main Street Bridge, Chicago River.....	.....	.....	.....	2,630
Ashland Avenue Bridge, Chicago River.....	1,888	.....	619	2,450
Totals.....	71,188	2,675	619	15,080

REPORT APPROVING SURETY BONDS OF THE AMERICAN BRIDGE COMPANY ON CONTRACTS FOR CONSTRUCTION OF SUPERSTRUCTURES OF BRIDGES CROSSING THE CHICAGO RIVER AT STATE AND HARRISON STREETS.

Mr. Cloldt, member of the Committee on Finance, presented a report from the Committee as follows:

CHICAGO, August 17, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance begs leave to report that it has examined the bonds given by the American Bridge Company of New York, for the construction of the superstructure for the bridges across the Chicago River at State Street and Harrison Street, said bonds being each in the sum of thirty-five thousand (\$35,000.00) dollars, with the City Trust, Safe Deposit and Surety Company of Philadelphia as surety.

Your Committee finds each of said bonds to be executed in proper form, and hereby approves said surety on each of said bonds and recommends that the same be approved by your Honorable Body.

Respectfully submitted,

(Signed) ZINA R. CARTER,  
*Chairman.*

ALEX J. JONES,  
FRANK X. CLOIDT,  
THOMAS A. SMYTH,  
JOSEPH C. BRADEN,  
WM. LEGNER,  
*Committee on Finance.*

The report being accompanied by said bonds and contracts in duplicate.

Mr. Cloldt, seconded by Mr. Legner, moved that the report be adopted and the recommendations contained therein concurred in.

The motion prevailed unanimously and it was so ordered.

The following are the contracts:

#### SUPERSTRUCTURE FOR STATE STREET BRIDGE.

##### SANITARY DISTRICT OF CHICAGO.

Contract and Specifications for the Superstructure of a Highway Rolling Lift Bridge of the Scherzer type, crossing the South Branch of the Chicago River, in the City of Chicago, to be built for the Sanitary District of Chicago.

*This Agreement, Made and entered into this fourteenth (14th) day of August, A. D. 1901, by and between the Sanitary District of Chicago, of the first part, and American Bridge Company of New York a corporation organized and existing under and by virtue of the laws of the State of New York, of the second part.*

A—

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the Highway Rolling Lift Bridge for the Sanitary District of Chicago, crossing the South Branch of the Chicago River at State Street in the City of Chicago.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer or

other designated representative of the Sanitary District of Chicago, and his properly authorized agents, and by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer or other designated representative shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein expressed; and the Chief Engineer or other designated representative of the Sanitary District in charge of said work shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Wherever the words "Sanitary District" are used in this contract, they shall be understood to mean the Sanitary District of Chicago, as represented by the Board of Trustees of the Sanitary District or their duly authorized and accredited agents.

Whenever the word "Engineer" is used herein, it shall be understood to mean either the Chief Engineer of the Sanitary District of Chicago, or the duly designated representative of the Sanitary District.

Wherever the word "Contractor" is used herein, it shall be understood to mean the person or persons or co-partnership or corporation entering into the contract as party of the second part.

The following ordinance, passed by the Board of Trustees of the Sanitary District of Chicago, June 23, 1897, is hereby made a part of this contract, and the party of the second part agrees to comply with its provisions, and in case of violation thereof to be subject to the penalties therein authorized to be imposed:

*"As it ordained by the Board of Trustees of the Sanitary District of Chicago:*

"SECTION 1.—That in the preparation of all future specifications for contracts for the construction of the Main Channel and auxiliary works, the Engineering Department shall provide that such contracts shall be executed in conformance with the law constituting eight (8) hours a legal day's work in all contracts under the Sanitary District of Chicago, and that, in the employment of labor, contractors shall be required and specifically agree to give preference to Union labor.

"SECTION 2.—That all contracts hereafter executed for the works of the Sanitary District of Chicago shall contain provisions constituting eight (8) hours a legal day's work, and forbidding the employment of any employe or employes for a longer period than eight (8) hours in any twenty-four (24) hours, and that said contract shall vest specific authority in the Police Department of the Sanitary District of Chicago to exercise supervision for the enforcement of this provision, and shall provide that the Board of Trustees of the Sanitary District of Chicago shall be empowered, in all cases of violation of said eight (8) hour law, to deduct and retain from any money accruing to said contractors a sum as liquidated damages at the rate of five dollars (\$5.00) per hour for each employe who shall be required to work in excess of eight (8) hours per day by any contractor on said Canal."

## SUPERSTRUCTURE.

### GENERAL.

#### Work Included.

1. The work included under the contract for

the superstructure consists in furnishing all materials and labor, and erecting complete in place, ready for operation and use for traffic, the superstructure, operating machinery, locks, electrical equipment, river and highway signals, houses, stairs, etc., wooden floor, sidewalks, gas pipe railings, with the necessary spikes, bolts and washers, and the furnishing of all anchor rods, tie rods, track girder protections, I beams, anchor columns; in fact all iron or steel to be set in structure, including all templates for setting same and all paint, and it shall be furnished by the contractor at the site and at such time as may be required by the progress of the work of the substructure contractor. The contract for the superstructure, in fact, includes everything not included in the substructure contract to put the bridge in complete working order, except the motive power, which will be electricity furnished at the switchboards in the operator's houses. The removal of the old bridge is included in the contract work on the substructure. The steel linings for the counter weight pits are to be furnished by the contractor, if so ordered by the Engineer, at the separate pound price named in this bid.

### Plans and Specifications.

2. The General Specifications for Steel Highway Bridges and Viaducts, by Theodore Cooper, 1896 Edition, shall govern in regard to quality of material, proportion of parts, general details of construction, workmanship, painting, erection and inspection, and all other respects, except in the changes and additions herein specified.

3. The accompanying plans form a part of the specifications, and, in the event of any discrepancy between the plans and these specifications, the judgment of the Engineer shall be decisive thereon. The figured dimensions on the drawings are to be taken whenever they do not agree with the dimensions obtained by scaling from the drawings.

### Detail Plans.

4. All detail and shop plans required shall be made at the expense of the contractor, and shall be submitted to the Engineer for approval before beginning work. Such detail plans shall have a uniform size of twenty-six (26) inches by forty (40) inches, inside border lines, with a border margin of one-half (1/2) inch. When submitted for approval, three (3) complete sets of prints of such detail plans shall be sent to the Sanitary District of Chicago. The contractor shall furnish the Sanitary District of Chicago with six (6) complete sets and F. M. Montgomery & Co. with two (2) complete sets of these approved plans, free of cost. No alterations of approved plans will be made by the contractor without the written consent of the Engineer. The approval of the Engineer will not relieve the contractor from the responsibility of errors thereon.

### Approval of Plans, etc.

5. All detail and shop plans before accepted by the Engineer must be submitted to and meet the approval of Frank M. Montgomery & Co., who shall also have authority to inspect the erection of the work.

### Checking Plans.

6. All of the accompanying plans shall be carefully checked by the contractor before beginning work. Should any errors be discovered, the Engineer's attention shall be called to the same and corrections made, after which the contractor shall be responsible for all errors which may occur or which may have occurred.

### QUALITY OF MATERIAL.

#### Wrought Iron.

7. All wrought iron used shall have an ulti-

mate tensile strength of not less than 48,000 pounds per square inch, an elastic limit of at least 26,000 pounds per square inch, and an elongation of at least 20 per cent. In eight inches, and be so ductile that, when bent cold through 180 degrees and hammered down flat on itself, it shall show no signs of fracture on convex side of curve.

#### *Steel.*

8. All steel shall be uniform in quality and made by the "Open Hearth" process.

#### *Structural Steel—Number of tests.*

9. All structural steel shall be medium steel, uniform in quality, and shall be made by the "Open Hearth" process. Tests shall be made upon pieces cut from the finished material, and shall be not less than one-half ( $\frac{1}{2}$ ) square inch in sectional area. At least one tensile and one bending test shall be made from each melt of steel as rolled. Also, at least one tensile and one bending test shall be made of each "variety" of material into which a melt is rolled. Each of the following shall constitute a "variety": (1) Angles and "Z" bars; (2) I-beams and Channels; (3) Universal Plates; (4) Sheared Plates; (5) Bars and Rounds. Also, steel varying materially in thickness from the steel tested shall be separately tested. If more than ten tons is rolled from any melt for this order, then at least two tensile and two bending tests shall be made from the steel of such melt as rolled, but not more than one test of either kind shall be made from a single piece of steel as rolled. When tested in specimens as above, medium steel shall have an ultimate tensile strength of from sixty thousand (60,000) pounds to sixty-eight thousand (68,000) pounds per square inch, an elastic limit of not less than thirty-six thousand (36,000) pounds per square inch, shall elongate not less than twenty-five (25) per cent. in eight inches, and show a reduction of area at point of fracture of not less than forty (40) per cent. The test piece must also bend cold one hundred and eighty degrees (180) around a curve whose diameter is equal to the thickness of the piece, without a crack or flaw on convex side of bend. A hole punched for a three-quarter ( $\frac{3}{4}$ ) inch rivet, one and one-half ( $1\frac{1}{2}$ ) inches from the edge of the plate, shall be capable of being enlarged by drifting to one and one-eighth ( $1\frac{1}{8}$ ) inches in diameter, without sign of fracture.

#### *Rivet Steel.*

10. Rivet steel shall have an ultimate strength of fifty thousand (50,000) to fifty-eight thousand (58,000) pounds, and an elastic limit of not less than fifty-five (55) per cent. of the ultimate; an elongation of not less than twenty-seven (27) per cent. in eight (8) inches, and must bend one hundred and eighty (180) degrees flat on itself without sign of fracture on convex side of bend. All rivets, whether shop or field, shall be of the best quality of rivet steel, as specified.

#### *Quench Tests.*

11. Specimens taken from all grades of steel, after being heated to a light cherry red (as seen in the dark) and quenched in water of eighty-two (82) degrees Fahrenheit, must conform to the bending requirements above.

#### *Chemical Analysis.*

12. The chemical analysis for carbon and phosphorus of each melt must be furnished to the Engineer or his Inspectors before any of the material rolled from said melt is shipped from the mill. Phosphorus must not exceed .06 per cent. for acid steel, or .04 per cent. for basic steel.

#### *Chippings and Alterations.*

13. All blooms, billets or slabs shall be ex-

amined for surface defects, flaws or blow holes before being rolled into the finished sections and such chippings and alterations made as will secure perfect solidity in the finished sections.

#### *Marking.*

14. The original melt number must be painted or stamped on all blooms, billets or slabs in order to identify the material throughout the various processes of manufacture; and the original melt number must be stamped on each piece of finished material from said melt.

#### *Finish.*

15. All finished rolled material must present a smooth, clean surface, free from buckles, flaws, cracked or ragged edges or any other defects, and must be straight throughout and true to section.

#### *Brittle Steel.*

16. No steel which proves brittle shall be used under any circumstances; if it develops this character at any stage of its manufacture it shall be at once condemned and other material used. The object of the more particular clauses, hereto relating, being to guard against the possibility of the use of this class of metal.

#### *Steel Castings.*

17. All steel castings shall have an ultimate strength of not less than sixty-two thousand five hundred (62,500) pounds per square inch, an elastic limit of not less than thirty-two thousand (32,000) pounds per square inch, shall elongate not less than twenty-five (25) per cent. in two (2) inches, and show a reduction at point of fracture of not less than thirty (30) per cent. The amount of phosphorus contained shall not exceed .06 per cent. All steel castings shall be sound and free from blow holes and roughness, sponginess, pitting, shrinkage cracks and other cracks, cavities, etc., and shall be thoroughly annealed according to the best practice. Each cast shall be so made that sufficient number of test pieces can be cut as to enable the Engineer or his inspectors to satisfy themselves of its quality.

#### *Machinery Steel.*

18. The materials used for shafting and forgings, except where otherwise specified, shall be of "medium" basic or acid "open hearth" steel, of a good finish and uniform quality, in which phosphorus shall not exceed .06 per cent. When tested in specimens of not less than one-half ( $\frac{1}{2}$ ) square inch sections, it must show an ultimate strength of sixty thousand (60,000) to sixty-eight thousand (68,000) pounds per square inch, with an elastic limit of at least fifty (50) per cent. of the ultimate, and an elongation of at least twenty-five (25) per cent. in eight (8) inches, and forty (40) per cent. reduction in area at point of fracture, and it must bend cold one hundred and eighty (180) degrees over a diameter equal to its thickness without sign of fracture. All steel forgings must be thoroughly annealed.

#### *Cast Iron.*

19. Cast iron, except counter weight castings, must be the best quality of soft iron. The casting must be free from flaws, ragged edges, or any other defects impairing its efficiency or appearance; and bars of a section one (1) inch square, placed four (4) feet six (6) inches between supports, must be strong enough to bear a weight of five hundred (500) pounds placed half way between supports.

#### *Phosphor Bronze.*

20. Phosphor Bronze shall be of the best quality for the purpose for which it is to be used. The castings shall contain eighty-eight (88) per cent. of copper and twelve (12) per cent. of phosphorus.

phosphorized tin; the phosphorized tin to contain five (5) per cent. of phosphorus. Upon each casting shall be cast suitable test pieces, which, in breaking, must show a good uniform metal, and when broken in testing machine shall show at least thirty-five thousand (35,000) pounds per square inch ultimate tensile strength.

#### *Babbitt Metal.*

21. All the babbitt metal used shall have the following composition: Fifty (50) parts tin, one (1) part copper, five (5) parts antimony.

#### *Counter-Weight.*

22. The counter-weight blocks shall be of cast iron. They must be smooth and true to dimensions within one-quarter ( $\frac{1}{4}$ ) inch, and free from cracks and blow holes.

#### *Live Load.*

23. The live load used in calculations shall be Cooper's Specifications for Steel Highway Bridges and Viaducts, 1896 Edition, Class A 1.

### **WORKMANSHIP.**

#### *Character of Work.*

24. More than ordinary care must be taken to have all workmanship strictly first class. The bearings for all shafts must be set to a true line, parallel, and the proper distance between centers. No shimming will be allowed. All bolt holes for connection to the structure of any part of the work to be done under these specifications must be drilled in the field, and unless otherwise specified all bolts must be turned to a driving fit. All shafting must be turned, care being taken to leave proper fillets at points where the diameter is reduced, and all shafts five and one-half ( $5\frac{1}{2}$ ) inches and over in diameter shall be bored their entire length. All parts of the machinery shall be so designed as to be readily removed and replaced by new parts.

#### *Nut Locks.*

25. Positive nut locks for all bolts shall be furnished, subject to the approval of the Engineer.

#### *Gear Wheels.*

26. All gear wheels must be closely bored to fit their axles or shafts, and properly keyed to the same. They shall be of cast steel, as herein specified, and one duplicate of each different gear shall be furnished by the contractor, if ordered by the Engineer, at the price per pound named in the bids. All gears are to be milled from patterns and such patterns will become the property of the Sanitary District as herein specified. All teeth of less than two (2) inches pitch shall be cut.

#### *Irregularities.*

27. Any irregularities that may occur in the teeth of the gears or rack castings must be chipped to template.

#### *Bearings.*

28. All bearings, unless otherwise shown on the plans, shall be babbitted.

#### *Oil Cups.*

29. Proper provision must be made for oiling all bearings, using oil cups approved by the Engineer.

#### *Wrenches.*

30. Suitable wrenches to fit the nuts of all bolts shall be furnished by the contractor without extra charge.

#### *Track Girders.*

31. The web plates, top flange plates and angles of the track girders, must be faced on top; the cast-steel track plates must get perfect bearing on them. The stiffener angles must have perfect bearing under the flange angles. The cast-steel track plate must be planed on top, out-

side of the teeth—see detail on track-girder sheet—and over the bottom surface, and the projecting teeth on all four sides to true width and pitch.

#### *Segmental Girders.*

32. The segmental girders, with their track plates, and the several members connecting to them, must be assembled in the shop and all rivet holes reamed to proper size, and all pieces properly marked before taking them apart. The web plates of these segmental girders and the flange plates and angles must be faced to be absolutely true to the circle called for and out of wind. The track plates must be faced on top, bottom and ends to get a perfect bearing on them, and also present a true circular surface on the outside. The square holes in the track plates, which engage with the teeth on the track girders, must be cut out to exact pitch, and the width must be such that the lateral play is not more than one-eighth ( $\frac{1}{8}$ ) inch.

#### *Operating Struts.*

33. The operating struts, where used, must be perfectly true and straight for their full length. The cast-steel racks, forming a part of them, must be planed on both sides and both ends, on center top rib and on the edges at the sides of the teeth to the height of the pitch line, and riveted up so that the pitch is uniform and the pitch line absolutely straight. The pin holes must be bored so that the axis of the hole shall be at a true right angle with the center line of the strut and exactly in the pitch plane of the teeth. The several pieces of rack must be examined carefully, and if any difference is found between them, those varying the same should be placed so in the struts that they come opposite each other. The cast-steel racks must all be placed by measuring from the center of the pin, and no variation of more than one thirty-second (1-32) inch will be allowed. Tap-bolts, one (1) inch in diameter shall be used and to connect the web plate to every second (2d) tooth, near the pitch line on each side of strut.

#### *Operating Rack.*

34. The curved operating pin rack, where used, in the top chord and tail end of each truss shall be laid out together with the segment and other supporting members to full size in the template shop, the curvature of the pin rack being thus determined with great care. The several pieces comprising this portion of the bridge shall be assembled in the shop and the connections reamed in place before shipment to insure accurate field erection. The pin holes in the curved pin rack shall be accurately bored at right angles to the truss members after the parts have been assembled and connections reamed, the several parts being firmly held in place by turned bolts completely filling the rivet holes. Such turned bolts shall also be used in field erection. No variation of more than one thirty-second (1-32) part of an inch, center to center of pins, shall be allowed.

### **ERECTION OF MACHINERY.**

35. The trusses marked "A" and "B," where used, on plans which support machinery must first be erected in the shop and all parts carefully and accurately fitted in order to insure the exact alignment of bearings and meeting of pitch lines of gears and rack, after which the trusses may be taken apart for shipment. All holes for field rivets must be reamed and holes for machinery bolts drilled, and bolts turned to exact but not driving fit.

36. The bottom of vertical posts shall be faced to true surface at right angles to their axis and the bearing plates shown shall be planed on top to true surface.

37. When erected, the shaft supporting the



main pinion must be at a true right angle to the axis of the operating strut, so that the teeth of the pinion shall accurately engage the teeth of the operating strut on their respective pitch lines the entire width of the teeth.

#### ELECTRICAL EQUIPMENT.

##### *Locks.*

38. The center lock, shown on the truss detail sheet, consists of a long tongue fastened between the members of the chord of Leaf No. 1 (which has one controller), extending into the members of the chord of Leaf No. 2 (which has two controllers), and resting on a diaphragm between the members of Leaf No. 2. It also consists of a short extension of the members of the chord of Leaf No. 2, resting on brackets fastened to the members of Leaf No. 1. In operating the bridge (closing), Leaf No. 2 will be lowered first to a position in which the brackets of Leaf No. 1 will clear the extension of Leaf No. 2 within a few inches; then Leaf No. 1 will be lowered until its tongue touches the diaphragm of Leaf No. 2, after which both leaves will come down together. In operating the bridge (opening), both leaves are raised simultaneously. Indicators, approved by the Engineer, must be provided which will show the position of each leaf during operation to each operator, day and night.

##### *Rear Locks.*

39. For each truss of each leaf of the bridge there shall be one rear lock, located and attached as shown on the machinery detail sheet. The rear locks are applied by gravity and opened by solenoids, each solenoid to have a lifting capacity of four hundred (400) pounds over and above the weight of its iron core and lock, when plunger is farthest out, and a stroke of six (6) inches.

40. The rear locks must be operated from the operator's houses, and so wired that the first notch of the controller lever operates the locks, releasing them. The rear locks of Leaf No. 1 must be fitted out with submarine electric connections, to be operated in the manner described above, from either of the two operators' houses. Indicators must be provided which show the positions of the locks to the operators, day and night, and the position of the rear locks on Leaf No. 1 must be indicated in the same manner to the operator on the opposite side of the river.

##### *Brakes.*

41. Each leaf of the bridge shall be provided with band brakes, located and attached as shown on the machinery detail sheet, the wheels of which shall be made of cast steel, the face to be turned. The brake bands shall be of steel, lined with  $2\frac{3}{4}$  inch soft iron strips. The power brakes shall be worked each by an electric solenoid, braking automatically when the current operating the bridge is cut off through the controller, the first notch of the controller releasing the brake without influencing the motors. Two auxiliary foot lever band brakes, located and attached as shown on the machinery detail sheet, shall be provided for each leaf. They shall be connected to one foot lever in the operators' houses that the pressure of the operator's foot will be distributed equally to each brake, but they shall be arranged in such a manner that the working of either brake will not be affected by failure of the other. One duplicate of each band shall be furnished by the contractor without extra charge, such duplicates to be fitted ready for use and marked to show their proper position.

##### *Motors.*

42. Each leaf of the bridge shall be operated by electric motors, located and attached as shown on machinery detail sheet. These motors shall be of the railway type, series wound, single reduction, multi-polar, water proof, with

steel frame and iron-clad armature; each to have a capacity of horse power as shown on machinery detail, at normal speed and five hundred (500) volts, and to be capable of carrying an overload of thirty-three and one-third (33 1/3) per cent. for thirty (30) minutes or fifty (50) per cent. for five (5) minutes, without injurious heating. The armature speed to be not more than six hundred (600) revolutions per minute, when the horse-power hereinbefore specified is being delivered by the motor at five hundred (500) volts. With each motor shall be furnished a pinion and gear with a standard reduction of 1:4.75. If any other reduction is used, the next pair of gears shall be changed correspondingly, so that the speed of the remaining train of gears will not be changed as originally designed. These pinions and gears shall be protected by a removable gear case. The contractor shall furnish one extra armature, field coil, pinion and split gear, same to be duplicates of those furnished with the motors. The motors and solenoids for brakes and tail locks shall be arranged in shunt.

##### *Pumps and Auxiliary Motors.*

43. Two pumps and two electric motors for operating such pumps shall be furnished and set by the contractor, one on each side of the river, with necessary piping and wiring and connections to switch-board. They shall be of such size and capacity as to pump the counterweight pits, if filled with water, dry in one hour, and shall be of such design and detail as will meet the approval of the Engineer and F. M. Montgomery & Co.

##### *Controllers.*

44. One controller, to be placed in each operating house to govern the main operating bridge motors, shall be of the reversible type, fitted with a device for blowing out, and shall be capable of varying and maintaining the speed of the motors from slow speed at the starting point to a maximum speed when full on, without sparking, and without shock or jar. It shall be of ample carrying capacity to transmit for one-half (1/2) hour, without injurious heating, thirty-three and one-third (33 1/3) per cent. above the normal amount required by the motors at full load, or transmit for five (5) minutes fifty (50) per cent. above the normal amount required by the motors. An additional controller, fulfilling the same requirements, shall be provided and placed in the operator's house on the side of the river designated by the Engineer, and so connected by submarine cables, switches, etc., as to be able to control the leaf of the bridge on the opposite side of the river. Care shall be taken to place the long tongue of the center lock on the leaf of the span opposite this additional controller. The first notch, or the first position of each controller lever, shall only release the electric brakes and rear locks, the second notch or position of the controller lever being the first to cut out resistance from, and start the operating motors. Two starting boxes for the pump motors shall be provided, and placed on the switch-board, one in each operator's house.

##### *Wiring and Cables.*

45. All wiring from the end of the supply wire on the switch board in the operators' houses on each side of the river shall be furnished by the contractor. All wiring between the switch-boards, motors, signals and lights, except the wiring within the operating houses, shall be lead covered, with rubber insulation, and run in iron conduits. Between the switch-boards in the operators' houses shall be furnished and laid, thirty-two (32) feet below Chicago datum, iron armored submarine cables of sufficient insulation and capacity to carry safely the necessary currents in strength and frequency to perform the various operations of the motors, locks and brakes, as designated above. All of this work to

be subject to the approval of the Engineer and F. M. Montgomery & Co.

#### *Lights.*

46. In the operators' houses on each side of the river shall be placed five (5) 16-candle-power lights, and ten (10) additional lights with waterproof sockets shall be placed on each side of the river about the machinery at such points as will be designated by the Engineer.

#### *Cut-Outs.*

47. An automatic circuit breaker shall be placed between each feeder and switch-board. Each submarine cable, each line to motors, each line to solenoids, and each lighting circuit shall be protected by suitable cut-outs, adapted to five hundred (500) volts and the load of the motor.

#### *Switches and Boards.*

48. Suitable switches shall be provided for each motor circuit and for each supply wire. The switches to be of ample carrying capacity for their respective loads, and to be mounted on a suitable switch-board, which shall be placed in a convenient position in each operator's house.

#### *General.*

49. All switches, cut-outs and buttons shall be suitably named and labeled, as directed, indicating their office. A voltmeter, equal to the Weston in quality, shall be placed in each operator's house on the switch-board. The contractor shall also provide and place on each switch-board one ammeter, reading to two hundred (200) amperes, and one fifty thousand (50,000) ohm magneto testing bell.

#### *Operators' Houses, Stairways, Etc.*

50. On each side of the river, located as shown on the approach detail sheet, shall be built and secured in place an operator's house, to be of such general dimensions and appearance as shown on the detail sheet of operators' houses. Stairways and walks of wood on steel framing, from the machinery to the ground, and from the operating house to the machinery, and wooden houses to protect the machinery and electrical equipment from the weather, with floors or platforms convenient for inspection, oiling and repairs, shall be provided and placed, subject to the approval of the Engineer.

#### *Heating.*

51. One coal stove with suitable cast-iron pipes and chimneys shall be furnished and set in each operating house subject to the approval of the Engineer.

#### *Railings.*

52. Railings shall be made of gas pipe, of such size and design as shown on the detail drawings as furnished herewith.

#### *Signals.*

53. At the extremity of both river arms shall be secured suitable standards, upon which shall be mounted signal stands, showing targets by day and red and green lights by night, the red lights to show to the river and the green lights to the roadway when the bridge is closed, and show reversed when the bridge is open.

54. In each operator's house shall be placed a telephone, complete, with receiver, transmitter, battery and magneto bell, connected by cable beneath the river. Upon the operator's house in which are placed the two controllers shall be placed a one hundred and ten (110) pound Meneely bell (Troy, N. Y.), to be properly hung, with cord leading to suitable points inside of the operator's house.

#### *Roadway Paving.*

55. Where shown on plans, the roadway floor

for the stationary parts of the bridge shall consist of yellow pine block paving, blocks to be seven and one-half (7½) inches long, resting on a floor of yellow pine planking four (4) inches thick, surfaced to one side and to uniform thickness. The planking will be laid at right angles and will be fastened to stringers. The blocks will be laid with close joints and in parallel rows across the roadway. Where not otherwise shown, stationary roadway shall be the same as for movable roadway. The roadway floor of the movable parts of the bridge shall consist of two courses of planking; the first course to be surfaced on one side to a uniform thickness of three and one-half (3½) inches and to be from six to ten (6 to 10) inches wide, laid three-quarters (¾) inch apart, at right angles to and well fastened to the stringers. The top course shall be white oak surfaced on one side to uniform thickness of two and three-quarter (2¾) inches, laid at right angles to the line of the bridge and well spiked to the lower course. The oak plank to be from six to ten (6 to 10) inches wide, well seasoned and dry, and free from knots and other defects. All pine must be long leaf southern yellow heart pine, good quality, sound, free from sap, wind shakes, and large or loose knots. Each plank must be fastened to each stringer by two (three and one-half inches by three-eighths (3/8) inch railroad spikes driven from under side of floor.

#### *Sidewalks.*

56. The sidewalk planking shall consist of good quality pine, as above specified, surfaced on the upper side and edges. Planks to be six (6) inches wide, to be laid at right angles to bridge, with one-quarter (¼) inch open joints. Planks are to be well spiked to wood strips on stringers.

#### *Wheel Guards.*

57. The wheel guard shown on plans shall run the entire length of bridge, including approaches, and shall be surfaced one side and one edge to true size.

#### *Camber.*

58. The trusses of the bridge shall be so constructed as to give a slight camber to the floor, under the full live load.

#### *Name Plates.*

59. Two name plates, 16 inches by 26 inches shall be furnished by the contractor. These plates shall bear the following inscription: "Invented by William Scherzer, C. E. Patented December 26th, 1898. Designed by the Scherzer Rolling Lift Bridge Co., Chicago, Ill." These plates shall also properly mention all additional patents owned and designated by the Scherzer Rolling Lift Bridge Company at the time of preparing the plates. Two additional plates shall be inscribed as directed by the Engineer. All plates to be placed on the structure as directed by the Engineer.

#### *Duplicate Castings.*

60. The contractor must furnish such duplicates of the finished castings as directed by the Engineer, at the price per pound named in the bids. They must be fitted ready for use in the structure.

#### *Patterns.*

61. All patterns for castings shall be the property of the Sanitary District, and shall be delivered by the contractor where directed by the Engineer.

#### *Painting.*

62. All of the structural metal work before leaving the shop shall be thoroughly cleaned from all loose scale and rust and shall receive one good coat of paint of quality hereinafter specified, well rubbed in. In the riveted work, the surfaces coming in contact shall be painted with two coats of paint as above. Bottom of bed

plates, bearing plates and any parts not accessible for painting after erection shall have two coats of paint as above. The outside of the steel lining, if used, for counter-weight and floor pits shall receive an additional coat of asphalt paint or other paint as designated by the Engineer. This paint shall be furnished by the contractor, but applied by the contractor for the substructure. After the structures are erected, all metal work in substructure and superstructure shall be thoroughly and evenly painted with two additional coats of paint of quality as herein specified. The paint must be delivered at the bridge site at least ten (10) days in advance of the time it is to be used, and samples must be submitted to the Engineer for approval as to quality and color. No painting will be permitted to be done in wet or freezing weather. In case any paint is washed or scraped off before becoming dry, the work must be repainted to the satisfaction of the Engineer, and at the contractor's expense. All turned or planed surfaces must receive a coat of white lead and tallow before leaving the works. The operators' houses shall be painted as specified on plans.

#### *Paint.*

63. The paint to be used as first or shop coat shall be the highest grade of red oxide of iron paint, the pigment to contain at least forty (40) per cent. sesqui-oxide of iron and be mixed with best boiled linseed oil and turpentine Japan dryer. No benzine will be allowed in the paint.

64. The paint for the second and third coats shall be the same as the first coat with the addition of one (1) ounce of best Germantown lamp black to each gallon of paint for the second coat and one and one-half (1½) ounces of the same lamp black to each gallon of paint for the third coat, to be thoroughly stirred in by machinery.

65. A written statement and guarantee of the composition of the paint shall be given the Engineer by the manufacturer furnishing the paint.

#### *Maintenance.*

66. The contractor will be required to maintain the superstructure work for a period of twelve (12) months after the same shall have been completed to the satisfaction of the Engineer, keeping the same in perfect repair during that time against all damages of wear and tear due to imperfect material or faulty workmanship which may be discovered under the legitimate use or operation of the bridge. He shall be required to execute a bond in the sum of \$15,000 for the faithful performance of this before receiving a final payment of his contract.

#### *Shipping.*

67. All parts shall be carefully loaded so as to avoid injury in transportation, and shall be at the contractor's risk until erected and ready for traffic. All screw ends shall be wrapped with twine before shipment. All pins and small parts must be securely boxed and the boxes plainly marked. The weights of large pieces must be marked on them. The invoices shall state the contents of each box and the weight and description of each piece that is boxed, and three copies of each invoice shall be furnished the Sanitary District of Chicago. The above weights shall be the actual, not estimated, weights.

#### *Approach, State Street Bridge.*

68. The contractor for superstructure of State Street Bridge shall move the superstructure of the two approach spans on the north side of the river to the position shown on the drawings. He shall make all necessary examinations and measurements, do all shop and field work and furnish all iron, steel, lumber, paint and other material necessary, and shall connect the approach to the new bridge and finish complete ready for traffic. Prospective bidders are re-

quired to carefully examine the existing structure to inform themselves as to the magnitude and nature of this work. The price for moving the above mentioned approach spans and connecting with the new bridge, including the furnishing of all necessary material and labor, staging and false work, shall be a lump sum to be named in the bid. Any new foundations required for this approach will be included in the contract work for the substructure.

#### *Erection.*

69. The contractor shall furnish all staging and false work, shall erect and adjust all the metal work except metal work in substructure as herein specified, shall furnish and put in place all floor timbers and timber guards. The contractor shall assume all risks of accidents to men or material prior to the acceptance of the finished structure. The contractor must also remove all false work, piling and other obstructions, or unsightly material produced by his operations. The contractor shall furnish all templates for setting metal work in substructure and in proper time for erection of such work.

#### *Extra Inspections.*

70. Should the preparation of the material for this structure be widely distributed, or should unnecessary delays in getting out the same, or delay in the required date of final completion occur, the cost of extra inspection shall be borne by the contractor; the Engineer to be sole judge of what is to be deemed extra inspection.

#### *Final Acceptance.*

71. Any material or workmanship which does not satisfy the requirements of these specifications may be rejected by the Engineer at any time before the final acceptance of the work, and the contractor shall make good all deficiencies at his own cost. The fact that the authorized inspectors have inspected said material or workmanship shall not make the Sanitary District liable for extra cost for replacing the same with material or workmanship accepted by the Engineer on final acceptance.

#### *GENERAL CONDITIONS.*

72. The drawings furnished form a part of these specifications, and any work shown therein shall be executed the same as if mentioned herein. The work is to be made complete and to the satisfaction of the Engineer, notwithstanding any omissions in plans or specifications.

#### *Change in Plans.*

73. The quantity of work and material figured from the plans is approximate, and the Sanitary District reserves the right to make any changes in the plans or specifications which may be deemed necessary either before or after beginning the construction thereof; provided, that if alterations are made, the general character of the work as a whole is not changed thereby. If such alterations diminish the quantity of work to be done, they shall not constitute a claim for damages nor for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract. Notice of change of plan must be given to the contractor in writing, and it is expressly agreed that no alterations or additions or extra work are to be paid for, unless so directed in writing.

#### *Extra Work.*

74. All claims for extra labor or material furnished by the contractor, or for damages from any cause whatever, must be reported to the Engineer at the time such labor or material is furnished or such damages occur, and they must

also be presented to him in writing at the end of the month; provided, that nothing shall be paid for an extra work that can be classified under any of the heads upon which prices are fixed by this contract. Whenever work is required to be done, which is not now contemplated or covered by the prices hereinafter given, the Committee on Engineering shall fix such prices for the work as they shall consider just and equitable, and the contractor shall abide by such prices, provided he enters upon such work with a full knowledge of the prices so fixed by the said Committee; but if the contractor declines executing said work at the prices fixed by said Committee, then the Sanitary District may enter into contract with any person or persons for its execution the same as if this contract had never existed; and if extra work or work not provided for in this contract is performed by the contractor before prices have been fixed for such work, then the Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and said contractor shall accept such prices in full satisfaction of all the demands against the Sanitary District for said extra work; provided that, if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work, with fifteen (15) per cent. added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

#### *Responsibility of Contractor.*

75. It is further agreed that in all cases of question or dispute arising or growing out of this contract in any way regarding the cost or value of extras, variations, allowances, deductions, or the amount of damages in any manner growing out of the violation of this contract, the decision of the Engineer shall be final and binding on both parties hereto. All work provided for in this contract is to be done under the direction and supervision of the Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without extra charge therefor, to enable the Engineer to properly give lines and grades and measure the work from time to time.

76. All materials of whatever kind to be used in the work will be subject to the inspection and approval of the Engineer. All unsuitable or rejected materials must be removed from the premises at once by the contractor.

77. All work shall be subject to constant inspection before acceptance. Any unfaithful or imperfect work that may be discovered before its final acceptance shall be corrected immediately, and any unsatisfactory material used in the work shall be rejected and removed on the requirement of the Engineer, notwithstanding they may have been overlooked by the inspector and estimated. The inspection of any work shall not relieve the contractor of any of his obligations to perform sound work, as herein specified, and all work which, during its progress and before its final acceptance, may become damaged from any cause, shall be removed and replaced by good and satisfactory work.

78. The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his con-

trol, and will not be allowed to sublet all or any part of it; it being distinctly understood and agreed that the subletting of the work covered by this contract, or any part thereof, shall, after thirty (30) days' notice, work a forfeiture of the contract at the option of the Sanitary District.

79. In the event of any action at law or in equity being taken by any person, persons or corporation which would restrain the Sanitary District from giving or the contractor from securing possession of the site of the bridge, or in any way delay the execution of this contract, then, in that case, the contractor shall not hold the Sanitary District liable for any loss or damage by him sustained on account of such interference, and the contractor shall be accorded an extension of the period within which the work was to have been completed by the terms of this contract, equal to the time lost by reason of such restraint.

80. During all periods of construction the contractor shall uninterruptedly keep open for navigation a channel of sufficient width in the river to permit continuous traffic on the same.

81. The contractor shall conform to all the ordinances of the City of Chicago and the regulations imposed by the United States Government in any manner affecting this work, and he shall release the Sanitary District of Chicago from all responsibility for loss or damage occasioned by delays or inconveniences due to the navigation of the river by vessels of any sort or description or for other causes not now foreseen. He shall also be responsible for and make good all damages to adjoining property which may be occasioned by him or his work in the execution of this contract.

82. The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case the contractor fails to comply with the provisions of this contract as to progress and character of work, he shall be duly notified in writing, and thirty (30) days after the giving of said notice the Sanitary District may declare this contract forfeited, if there is a substantial failure to comply with its provisions.

#### *Tools.*

83. The contractor is to furnish all the tools of every description, including pumps, cars and tracks, boats, barges and tugs necessary to the full and complete carrying out of this contract, and on completion of the work is to remove all tools, buildings and materials of all kinds from the sight of the bridge.

#### *Precautions.*

84. Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, shall be taken by the contractor.

#### *Workmen.*

85. The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work will be employed where special skill is required, and in the employment of men preference shall be given to union laborers. It is especially understood and agreed that eight (8) hours shall constitute a day's work, and that no workman shall be employed or required to work more than eight (8) hours out of any twenty-four (24) hours, and no work in excess of that time shall be allowed. In the event of any violation of the above eight (8) hour provision, it is agreed hereby that the said District shall, and that it is duly authorized

to retain from any money due, or to become due, at any time from it to the contractor, as liquidated damages, the sum of five dollars (\$5) per hour for each hour that any employee shall be required to work in excess of eight (8) hours per day, pursuant to the terms and conditions of the ordinance adopted June 23rd, 1897, attached hereto.

#### Patents.

86. It is further agreed that the contractor shall indemnify, keep and save harmless said Sanitary District from all liabilities, judgments, costs, damages and expenses which may in anywise come against said Sanitary District, or which may result on account of any infringement of any patent by means of the use of any materials, machinery, device or apparatus used in the performance of this contract, or of designs furnished by the contractor and accepted by the Sanitary District, except the patents on a bridge design of the Scherzer type controlled by Frank M. Montgomery & Co., and in the event of any claim or suit or action at law or equity of any kind whatsoever being made or brought against said Sanitary District, then the Sanitary District shall have the right to retain a sufficient amount of money in the same manner and upon the same conditions as hereinafter in the next following clause in this contract provided.

#### Damages.

87. If any damage shall be done by the contractor or by any person or persons in his employ to the owner or occupants of land, or to any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, the Engineer shall have the right to estimate the amount of said damage, and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for said damages shall be deducted from the money due said contractor, under this contract. Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself, or his employees, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for, or on account of, any such injuries, or such damage received or sustained by any person or persons, by or from said contractor, servants, agents or employees, in the execution of said work; or by or in consequence of any negligence in guarding the same; or by or on account of any omission or act of said contractor, his agents or employees; and the said contractor further agrees that so much of the money due to him under and by virtue of this contract as shall be considered necessary by the Board of Trustees of the Sanitary District may be retained by the said Sanitary District until such suit or claim for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

#### Time.

88. The contractor agrees to begin the work covered by this contract within fifteen (15) days after said contract shall have been executed, and to prosecute the building of the structure herein provided for so as to complete the same on or before the fifteenth day of July, 1902.

#### Penalty.

89. The contractor hereby agrees to forfeit as liquidated damages for any non-compliance with, or non-fulfillment of the provisions of this contract within the time specified fifty dollars (\$50) per day for each day beyond July 15, 1902, within which the work hereby provided is to be completed, time being an essential part of this contract.

90. In case the substructure is not completed

and ready to receive the superstructure by March 1, 1902, an extension of time will be granted for the completion of the superstructure equivalent to the time required beyond March 1, 1902, for the completion of the substructure.

#### Prices.

91. In consideration of the said work being carried on and completed in the time and manner as hereinbefore specified, the said Sanitary District agrees to pay to the said contractor for the superstructure the following amounts, and the said contractor agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit:

(a) For the superstructure, furnished and erected complete, including operating machinery, locks, signals, electrical equipment, pumps with motors, houses, etc., for operating this bridge, as specified, and to furnish all iron and steel in the substructure at the site of the bridge, except the steel lining to counterweight piers, the sum of eighty-six thousand four hundred dollars (\$86,400).

(b) For furnishing the steel lining for counterweight piers, if required, as shown on drawings, the sum of five (5) cents per pound.

(c) For extra medium or soft steel, erected in place, the sum of four (4) cents per pound.

(d) For extra iron castings, erected in place, the sum of four (4) cents per pound.

(e) For extra cast steel in track plates, erected in place, the sum of ten (10) cents per pound.

(f) For extra steel castings and all other steel for machinery, erected in place, the sum of ten (10) cents per pound.

(g) For extra phosphor bronze, erected in place, the sum of fifty (50) cents per pound.

(h) For extra counterweight block castings, erected in place, the sum of two (2) cents per pound.

(i) For extra yellow pine or oak put in place as specified, per one thousand (1,000) feet, B. M., the sum of fifty dollars (\$50).

(k) For moving north approach spans at State Street Bridge and connecting same with new bridge ready for traffic, including the furnishing of all material and labor, as specified, the sum of one thousand five hundred dollars (\$1,500).

The prices proposed must include all royalties for patents, or patented material or appliances used in the construction of the work described in the specifications and agreements; and before final payment is made, the contractor shall furnish a satisfactory guarantee against all claims; provided, however, that this does not apply to the patented design of the bridge of the Scherzer Rolling Lift Bridge Company, the right to use the same having been purchased by the Sanitary District.

#### Time and Manner of Payment.

92. It is agreed by the party of the first part that on or before the 10th day of each month during the progress of the work and subject to the provisions hereinbefore specified under the head of "Time," payment will be made to the said party of the second part to the amount of sixty (60) per cent. of the value, as estimated by the Engineer, of the structural metal delivered under this contract, upon written certificate from the Engineer that such amount of material has been delivered during that period at the site of the bridge; forty (40) per cent. being reserved until the completion and acceptance of the work by the party of the first part. The said forty (40) per cent. to be paid upon the written certificate

of the Engineer within thirty days after said acceptance.

#### *Certificate.*

93. Upon the completion of the superstructure in accordance with the specifications and contract, to the full satisfaction of the Engineer, and upon the inspection of same and the issuance of the final certificate by the Engineer, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to said second party by the said certificate of said Engineer.

#### *Failure to Complete.*

94. It is further agreed by the said party of the second part that if the work to be done under this contract on the superstructure shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or if at any time the Engineer shall be of the opinion and shall so certify in writing to the said party of the first part that said work, or any part thereof, is unnecessarily and unreasonably delayed, or that the contractor is willfully and persistently violating any of the conditions or covenants of this contract, or is not fulfilling said contract in good faith, the said party of the first part shall have the power to notify the said contractor to discontinue all work, or any part thereof, as may be designated by the said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams and to obtain such machinery, implements and tools and to purchase such material as the said Engineer may deem necessary to complete the work herein described, or any part thereof. And, in so doing, said Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work by the said Engineer shall be charged to the said contractor, and the expense so charged shall be deducted and paid by the said party of the first part out of such moneys as may be due, or may at any time thereafter become due to said contractor, under and by virtue of this contract, or any part thereof, so far as the same shall suffice therefor; and the balance, if any, shall be paid by said contractor on demand. Should there be a failure by the second party to deliver said material of the character and strength herein provided for at the time herein specified, or if, after delivery of same as herein provided, said contractor should fail financially, either before or after having been paid the sixty (60) per cent. of the contract price as hereinbefore provided, and be unable to carry out said contract and complete said work, then, in that case, the said party of the first part shall have the power to complete said work by contract or otherwise, at its discretion, and charge up the cost of so completing the said work to said contractor. Should the amount remaining unpaid of the contract price not suffice therefor, then said contractor and his bondsmen shall be held liable for the deficiency. If at any time during the progress of said work the said contractor shall fail or neglect to pay for labor performed or material furnished upon said work for ten (10) days after it shall have become due, then the party of the first part shall have power to pay for such labor or for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind used or consumed in, upon or on account of the work covered by this contract; the party of the first part shall have the power to pay for such labor or materials, machinery, appliances, fuel, provisions or supplies of whatsoever sort or kind, out of money that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due

to said contractor. In any such case the party of the first part is hereby authorized and empowered by the party of the second part to ascertain by its Engineer the amounts due or owing from said contractor to any laborer or laborers, or to any person or persons, for materials, tools, machinery, appliances, fuel, provisions or supplies of any sort or kind consumed upon, in or on account of the work covered by this contract in such manner and upon such proofs as the said Engineer may deem sufficient.

#### *Contractor's Bond.*

95. The contractor shall furnish bond in the sum of thirty-five thousand (\$35,000) dollars for the superstructure of this bridge, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned upon the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of the said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten (10) days notice thereof in writing, require said contractor to furnish a new and additional bond in place of the bond so having become insufficient or worthless.

#### *Final Payment.*

96. The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until all of the stipulations hereinbefore mentioned are complied with, and the said Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work, should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

IN WITNESS WHEREOF, On the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set its hand and seal.

THE SANITARY DISTRICT OF CHICAGO,

[SEAL]

By ALEX. J. JONES,  
President.

Attest:

A. R. PORTER,  
Clerk.

AMERICAN BRIDGE COMPANY OF NEW YORK,

By JOSHUA A. HATFIELD,  
President.

Attest:

H. SCHOONMAKER,  
Secretary.

# **SUPERSTRUCTURE FOR HARRISON STREET BRIDGE.**

*The contract and specifications for the superstructure of the Highway Rolling Lift Bridge for the Sanitary District, crossing the South Branch of the Chicago River at Harrison Street, in the City of Chicago, are identical in every respect with those for the superstructure of the Highway Rolling Lift Bridge crossing the South Branch of the Chicago River at State Street, in the City of Chicago, as printed in the Proceedings of this date on pages 7395-7404, except that part of these contracts pertaining to dates, special price for the work, etc., which parts are as follows:*

## **SANITARY DISTRICT OF CHICAGO.**

Contract and Specifications for the Superstructure of a Highway Rolling Lift Bridge of the Scherzer type, crossing the South Branch of the Chicago River, in the City of Chicago, to be built for the Sanitary District of Chicago.

*This Agreement, Made and entered into this fourteenth (14th) day of August, A.D. 1901, by and between the Sanitary District of Chicago, of the first part, and American Bridge Company, of New York, a corporation organized and existing under and by virtue of the laws of the State of New York, of the second part.*

A—

**WITNESSETH:** That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the Highway Rolling Lift Bridge for the Sanitary District of Chicago, crossing the South Branch of the Chicago River at Harrison Street in the City of Chicago.

## **Prices.**

91. In consideration of the said work being carried on and completed in time and manner as hereinbefore specified, the said Sanitary District agrees to pay to the said contractor for the superstructure the following amounts, and the said contractor agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit:

(a) For the superstructure, furnished and erected complete, including operating machinery, locks, signals, electrical equipment, pumps with motors, houses, etc., for operating this bridge, as specified, and to furnish all iron and steel in the substructure at the site of the bridge, except the steel lining to counter-weight pits, the sum of ninety-three thousand five hundred dollars (\$93,500.00.)

(b) For furnishing the steel lining for counter-weight pits, if required, as shown on drawings, the sum of five (5) cents per pound.

(c) For extra medium or soft steel, erected in place, the sum of four (4) cents per pound.

(d) For extra iron castings, erected in place, the sum of four (4) cents per pound.

(e) For extra cast steel in track plates, erected in place, the sum of ten (10) cents per pound.

(f) For extra steel castings and all other steel for machinery, erected in place, the sum of ten (10) cents per pound.

(g) For extra phosphor bronze, erected in place the sum of fifty (50) cents per pound.

(h) For extra counter-weight block castings, erected in place, the sum of two (2) cents per pound.

(i) For extra yellow pine or oak put in place as specified, per one thousand (1,000) feet, B. M., the sum of fifty (\$50.00) dollars.

## **COMMUNICATION FROM THE ATTORNEY RECOMMENDING THE APPOINTMENT OF FRANK PALT AS THIRD ASSISTANT ATTORNEY..**

The clerk presented a communication from James Todd, attorney for the Board, as follows:

CHICAGO, August 28, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

**GENTLEMEN—**On account of the pressure of business in my office, I desire to recommend that Mr. Frank Palt be appointed to the position of Third Assistant Attorney of the Board. Mr. Palt is an expert in real estate matters and has had much experience in the examination of abstracts and will be a valuable man to the District.

Very truly yours,

JAMES TODD,

Attorney.

Mr. Cloldt, seconded by Mr. Webb, moved that the recommendation contained in the communication from the Attorney of the Board for the appointment of Frank Palt as Third Assistant Attorney, be concurred in.

The roll being called the motion was adopted by the following vote:

*Yeas—*Messrs. Baker, Braden, Cloldt, Jones, Legner and Webb—Six.

*Nays—*None.

## **ADJOURNMENT.**

On motion of Mr. Legner, seconded by Mr. Cloldt, the Board adjourned.

*A. R. Porter.*  
CLERK

August 28,]

—7406—

[1901



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

-----  
SEPTEMBER 11, 1901.  
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**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Thirty-eighth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the Rooms of the Board, Security Building, Wednesday, September 11, 1901, at 2 o'clock P. M.

The President, Mr. Jones, took the chair,

and the meeting being called to order, there were then

*Present*—Messrs. Baker, Carter, Cloidt, Jones, Webb and Wenter—Six members.

*Absent*—Messrs. Braden, Legner and Smyth—Three members.

**MINUTES.**

On motion of Mr. Cloidt, seconded by Mr. Webb, the minutes of the special meeting held August 28, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

Lydon & Drews Company (Pan Handle Temporary Bridge, Section O).	\$ 500 00
Lydon & Drews Company (Main Street Bridge, Sept. 1, 1901).....	4,291 44
American Bridge Company (Main Street Bridge, Aug. 31, 1901) .....	1,050 00
Page & Shnable (Ashland Avenue Bridge, Sept. 1, 1901) .....	871 33

Jackson & Corbett Company (Randolph Street Bridge, Sept. 1, 1901) ..	\$ 1,925 00	
Heldmaier & Neu (Section 17, Aug. 31, 1901) .....	2,878 75	
Dunham Towing and Wrecking Company (account water power development, Section 15) .....	41 07	
Meacham & Wright (account water power development, Section 15) ...	390 40	
	<u>\$</u>	11,847 99

## ENGINEERING DEPARTMENT.

Wm. Trinkaus (expense) .....	\$ 15 80	
Eugene Dietzgen Company (drafting supplies) .....	5 24	
Keuffel & Esser Company (drafting supplies) .....	18 29	
J. W. Butler Paper Company (tabulation paper) .....	2 83	
The Stationery Manufacturing Company (stationery) .....	1 00	
Cameron, Amberg & Co. (stationery) ..	252 69	
Pittsburgh Testing Laboratory, Limited (inspecting bridge material) ..	83 53	
Pearson Bros. (blue prints) .....	17 52	
John F. Decker & Co. (photo material) .....	11 42	
Burke & James (photo material) .....	1 50	
S. J. Stebbins Company (hardware and paint) .....	5 97	
Henry Stuckart (hardware) .....	6 65	
Hibbard, Spencer, Bartlett & Co. (hardware) .....	7 79	
Geo. B. Carpenter & Co. (supplies for launches) ..	24 40	
Standard Oil Company (oil for launches) .....	31 05	
Knickerbocker Ice Company (ice) .....	3 43	
Illinois Engraving Company (half-tone views for concise report) .....	34 95	
Greeley-Howard Company (Chicago River survey) .....	25 00	
R. Seelig (repairing instruments) .....	34 35	
R. Seelig (gauge boards) .....	25 20	
H. Isak (gauge reading) .....	10 00	
Chicago Engineer Supply Company (oil for steam launches) .....	22 30	
J. W. Landis (lumber) .....	8 28	
A. R. Porter, Clerk (account dock lines, Secs. N and O) .....	18 00	
Theodore Buskirk (expense) .....	6 70	
T. J. Cullerton (expense account steam launch) .....	19 35	
		693 24

## CLERICAL DEPARTMENT.

Shea, Smith & Company (stationery) .....	4 86
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## LAW DEPARTMENT.

John H. Batterman (stationery) .....	\$ 2 10	
John W. Nadelhoffer (expense) .....	76 84	
Chicago Chronicle Company (advertising account condemnation proceeding) .....	164 00	
W. M. Springer (legal services) .....	2,315 40	
		2,558 34

## POLICE DEPARTMENT.

Bridget Lambert (laundry, Lockport Station) .....	6 00
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## GENERAL ACCOUNT.

Geo. B. Carpenter & Co. (oil, steamer Juliet) .....	\$ 9 00	
Leonard & Wright (repairs steamer Juliet) .....	15 96	
Wm. Saville (repairs, steamer Juliet) .....	25 34	
Thomas M. Sullivan (supplies, steamer Juliet) ..	108 77	
A. R. Porter, Clerk (expense) .....	320 57	
E. Buckley (livery) .....	21 00	
Chicago Telephone Company (toll service, July 19, 1901) .....	17 55	
Security Building Receivership (rent of offices, September, 1901) .....	458 33	
Dunlop's Saturday Night Dispatch (advertising) .....	7 40	
Chicago Phenix (advertising) .....	7 00	
	<u>\$</u>	990 92

## MAINTENANCE ACCOUNT.

Henion & Hubbell (steel tank).....	\$ 16 50	
Chicago Engineer's Supply Company (cotton waste).....	9 45	
William Trinkaus (expense).....	18 10	
Standard Oil Company (oil) ..	54 85	
Henry Stuckart (hardware).....	5 72	
A. R. Porter, Clerk (extra labor at warehouse).....	111 00	
	<u>\$</u>	210 12

## TELEPHONE LINE.

A. R. Porter, Clerk (repairs, July, 1901).....	\$ 163 00	
A. R. Porter, Clerk (repairs, August, 1901) .....	72 00	
G. M. Wisner (expense).....	6 75	
	<u>\$</u>	241 75

Grand total. .... \$ 16,553 22

Mr. Carter, seconded by Mr. Baker, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered.  
*Yeas*—Messrs. Baker, Carter, Cloldt, Jones  
 Webb and Wenter—Six.  
*Nays*—None.

## MONTHLY REPORT OF THE TREASURY DEPARTMENT.

The Clerk presented the report of the Treasury Department for the month of August, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

## SANITARY DISTRICT OF CHICAGO.

*Treasurer's Report for August, 1901.**Receipts.*

Balance on hand at date of last report.....	\$ 1,031,390 85
From County Treasurer, Sanitary District Tax Account.....	\$ 100,000 00
From Chicago National Bank, Interest Account .....	866 93
From Equitable Trust Company, Interest Account.....	424 63
From Home Savings Bank, Interest Account .....	339 72
Total cash received for month.....	<u>101,681 28</u>

\$ 1,133,022 13

*Disbursements.*

Clerical Department.....	952 64
Treasury Department.....	875 00
Engineering Department.....	7,742 30
Construction Account.....	94,682 83
Law Department.....	3,673 25
Land Account.....	10,500 00
General Account .....	4,110 29
Maintenance Account.....	637 88
Police Department.....	1,787 24
Telephone Line.....	15 25
Tax Warrants Paid.....	785 00
Interest on Tax Warrants Paid.....	44 10

Total cash disbursed..... \$ 125,211 28  
 Balance this date in banks, as per schedule endorsed hereon..... 1,007,810 85

\$ 1,133,022 13

*Schedule.*

Chicago National Bank.....	\$ 581,872 07
Equitable Trust Company.....	250,000 00
Home Savings Bank.....	200,000 00
National Bank of Illinois.....	25,938 78
<b>Total.....</b>	<b>\$ 1,007,810 85</b>

CHICAGO, September 4, 1901.

F. M. BLOUNT, *Treasurer.*By S. P. BLOUNT, *Assistant Treasurer.*

COMMITTEE ON FINANCE EMP. WERED TO  
REDUCE BOND OF HELDMAIER & NEU  
ON CONTRACT FOR SECTION SEVENTEEN,  
MAIN CHANNEL.

Under the head of new business, Chief Engineer Isham Randolph made a verbal report to the Board in reference to the request of Heldmaier & Neu for the reduction of bond on contract for work on Section 17, Main Channel; the Chief Engineer stating that the work of the contractors had so progressed as to warrant a reduction of their present bond of \$40,000.00, and recommended that the Board take such action as would lead to the reduction of said bond to \$5,000.00.

Mr. Cloldt, seconded by Mr. Baker, moved that the Finance Committee be em-

powered to take such action in regard to the reduction of the bond of Heldmaier & Neu on contract for Section 17, Main Channel, as may be consistent with the interests of the District.

The roll being called, the motion was adopted by the following vote:

*Yeas*—Messrs. Baker, Carter, Cloldt, Jones, Webb and Wenter—Six.

*Nays*—None.

## ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Wenter, the Board adjourned.

*A. R. Porter.*  
CLERK

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

SEPTEMBER 14, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**SPECIAL MEETING.**

A special meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Saturday, September 14, 1901, at 12 o'clock M., pursuant to call.

The roll being called, there were present Messrs. Baker, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Eight members.

The President of the Board, Mr. Alexander J. Jones, presided.

Mr. Jones announced that the Board had been called in special session for the purpose of taking suitable action on the death of President William McKinley.

Thereupon Mr. Carter was recognized and presented the following resolutions:

WHEREAS, We have heard with profound regret the sad intelligence of the death of President William McKinley, whose ultimate recovery had been the fervent hope of the American people for the past week; and

WHEREAS, The death of the Chief Execu-

row to our people, is a deeper affliction at this time by reason of the atrocious deed which led to his untimely end; therefore be it

**RESOLVED**, That we, the Board of Trustees of the Sanitary District of Chicago, with all the American people, express our deep abhorrence at the assassination of the President, and our personal grief over the loss of an executive who has always been sincere, devoted and honest in the performance of the great trust to which he was called by the Nation.

**RESOLVED**, Further, that we extend to his noble wife the tribute of our heartfelt sympathy in her hour of deep affliction, and that these resolutions be spread upon the permanent records of the Board.

At the conclusion of the reading of the resolutions, Mr. Carter, seconded by Mr. Baker, moved that they be adopted by a rising vote.

The motion prevailed unanimously by a rising vote.

**ADJOURNMENT.**

On motion of Mr. Smyth, seconded by Mr. Legner, the Board adjourned.

*A. R. Porter.*



**PROCEEDINGS**  
—OF THE—  
**BOARD OF TRUSTEES**  
—OF THE—  
**SANITARY DISTRICT OF CHICAGO.**

SEPTEMBER 25. 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Thirty-ninth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago, was held in the rooms of the Board, Security Building, Wednesday, September 25, 1901, at 2 o'clock, P. M.

The President, Mr. Jones, took the chair,

and the meeting being called to order, there were then

*Present*—Messrs. Baker, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter  
—Eight members.

*Absent*—Mr. Braden.

**MINUTES.**

On motion of Mr. Baker, seconded by Mr. Cloldt, the minutes of the regular meeting held September 11, 1901, and of the special meeting held September 14, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**PAY ROLLS.**

Engineering Department (Chief Engineer's Roll, September, 1901).....	\$	6,844 39
Engineering Department (Discharge Roll, September, 1901).....		65 52
	\$	6,909 91

September 25,]

—7414—

[1901

Clerical Department (Clerk's Roll, September, 1901) .....	933 33
Law Department (Attorney's Roll, September, 1901).....	2,126 65
Treasury Department (Treasurer's Roll, September, 1901).....	374 99
General Account (General Roll, September, 1901).....\$	205 00
General Account (Trustees' Roll, September, 1901).....	2,333 33
	<hr/>
	2,538 33
Police Department (Marshal's Roll, September, 1901).....	1,733 28
Maintenance Account (Controlling Works, September, 1901) .....	550 00
	<hr/>
Total.. .....	\$ 15,166 49

## CONSTRUCTION ACCOUNT.

Lydon & Drews Company (Main Street Bridge, September 15, 1901)....\$	3,452 69
Lydon & Drews Company (Canal Street Bridge, September 15, 1901)...	4,256 87
Lydon & Drews Company (Chicago River Improvement), September 25, 1901) .....	19,294 75
Page & Shnoble (Ashland Avenue Bridge, September 15, 1901).....	1,057 58
Heldmaier & Neu (Section 17, September 16, 1901).....	2,073 75
Hayes Bros. (Sections "N" and "O", September 14, 1901).....	875 00
Jackson & Corbett Company (Randolph Street Bridge, September 15, 1901) .....	1,137 50
	<hr/>
	32,148 14

## CLERICAL DEPARTMENT.

George E. Marshall & Co. (stationery).....\$	11 91
Chicago Printing and Embossing Company (stationery).....	11 50
	<hr/>
	\$ 23 41

## LAW DEPARTMENT.

James Todd, Attorney (expense).....	\$ 183 65
John S. Runnells (services, General Counsel, September, 1901) .....	416 66
	<hr/>
	600 31

## POLICE DEPARTMENT.

E. J. Coen (expense) .....	\$ 31 25
Standard Oil Company (oil, police stations) .....	3 90
	<hr/>
	35 15

## GENERAL ACCOUNT.

Inter Ocean Laundry (laundry, steamer Juliet).....\$	2 46
A. Hannibal (repairing office furniture).....	11 00
Standard Opinion (advertising).....	8 20
John F. Higgins (printing Proceedings) .....	518 36
Thomas M. Sullivan (groceries and provisions, steamer Juliet).....	153 44
	<hr/>
	703 46

## TAXES ON LAND, WILL COUNTY.

Joliet Water Works (water tax, Joliet).....	7 25
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## CAPITALIZATION AND MAINTENANCE OF BRIDGES.

Chicago Junction Railway Company (Eight-track Bridge).....	18,238 15
Grand total .....	<hr/>
	\$ 66,922 36



Mr. Carter, seconded by Mr. Baker, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Eight. *Messrs. Webb and Wenter requesting to be recorded as voting "Yea" on the voucher of the Lydon & Drews Company for Chicago River Improvement, in the sum of \$19,294.75, except for so much of said voucher as is for the work of excavation below the depth of 21 feet and amounting to \$14,577.50.*

*Nays*—None (except as above stated).

#### MONTHLY REPORT OF THE ENGINEERING DEPARTMENT.

The Clerk presented the report of the Engineering Department for the month of August, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

CHICAGO, September 16, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith present the report of the Engineering Department for the month of August, 1901, giving the detailed operations of the same.

The value of construction work done was \$58,795.67. Vouchers were issued on this account to the amount of \$65,864.45.

The engineering expenses for the month were \$7,964.79, divided as follows: Salaries, \$6,952.55; supplies, etc., \$1,012.24. Details of the above figures are given in tabulated statements submitted herewith.

*Chicago River*—The contractor for the dredging of the river worked dredge No. 6 all of the month, making 26 feet of water below the hydraulic grade between Twelfth and Fifteenth Streets, and practically completed this stretch of the stream. In the latter part of the month a dredge belonging to the Fitzsimons & Connell Co. was put to work just south of Twenty-second Street. The dock and protection at Armour Elevator "F" was completed on the 2nd. Two pieces of dock work was done during the month, one on each side of the south abut-

ment of the Ashland Avenue Bridge. This work was done in order to keep the material on the sides of the river from falling into the by-pass between the abutment and the piers of the bridge. The work was completed in the latter part of the month.

The work on the C. T. T. R. R. Co.'s Bridge, near Taylor Street, consisted of the following: On the 1st, the laying of the deck on the east side was completed: on the 12 h, power was turned off on account of burnt dynamo and turned on again on the 15th; on the 24th, the carpenter work and riveting was finished; and on the 27 h the iron men finished their work. The balance to be done on this bridge consists of electric work and laying of tracks.

The Jackson & Corbett Company, contractor for the substructure of the new Randolph Street Bridge, began tearing down the east approach to the old bridge on the 6th. At the end of the month all of the old superstructure was wrecked and about one-third of the piles of the center pier protection were pulled.

The contractor for the substructure of the Canal Street Bridge worked on the north and south coffer dams, and at the end of the month had the former about half completed and the latter entirely completed. The work of driving foundation piles for the north abutment was begun on the 12th and finished at the end of the month.

The contractor for the substructure of the Main Street Bridge started to dredge for the north abutment and pier on the 8th, and carried the work down to —12 C. C. D. Pile driving for the coffer dam was begun on the 12th, and Wakefield sheeting on the 22nd. About three-fourths of the coffer dam was completed at the end of the month. The excavation and bracing of the south coffer dam was completed, and the placing of concrete in the south abutment was begun on the 23rd. At the end of the month the placing of concrete in the south pier was begun.

The north abutment of the Ashland Avenue Bridge was practically complete at the end of the month. The Wakefield sheeting for the coffer dam for the north pier was also finished, and about one-third

of the excavation for the north pier was completed.

*Sections "N" and "O"*—The work of excavating the balance of material remaining in these sections is being carried on by the Lydon & Drews Co., under an agreement with Hayes Bros. and the Sanitary District. Dredge No. 2 of the Lydon & Drews Co. was taken through the collateral channel on the 2d, began work on the 3rd between stations 102 and 112, and continued throughout the month, removing 105 scow loads of material. The work of establishing dock lines and the setting of monuments was completed, and property lines and offset points were run. On the 10th a lot of piles belonging to the District and stored near the northwest end of the Eight-track Bridge, caught fire and were entirely burned.

Each of the railroad companies in interest at the Pan Handle crossing of the Main Channel had a small number of men working on the tracks a few days during the month.

*Section "K"*—The embankment of the Santa Fe Railway, where same is to be raised on account of the Belt Railway Company's Bridge, was cross-sectioned and the approximate quality of necessary fill was computed.

*Section 15*—Work was continued on the water power plant at the Controlling Works at Lockport and consisted of cutting concrete wall for inlet to wheels, stopping leak in coffer dam and of placing 163 cubic yards of concrete in the wall on west side of the Tail Race.

*Section 17*—The work done during the month by the contractors for this section was as follows: The dredge continued excavating in the Upper Basin to the end of the month, at which time the work in the basin was practically completed, except a little cleaning up. The plant employed

consisted of one dredge, one tug, three scows and one steam derrick.

*Telephone Line*—On the 10th about 1400 feet of copper wire was stolen from the line between the Pan Handle and the C. M. & N. R. R. Co.'s bridges, and on the 27th about the same amount was stolen from the line between Kedzie Avenue and the Santa Fe Bridge at Corwith. In both cases the stolen wire was replaced with iron wire.

In the Drafting Department work was continued on the 200 feet scale map of the North Branch of the Chicago River and the following drawings were made: A map of Herbert land near Jackson Creek, a copy of part of Mr. Seddon's flow profile, cross-sections of the Illinois River at Copperas Creek and Henry Dam and cross-sections of the Upper Basin of the I. & M. Canal, showing final excavation done by the District.

The shop plans (sheets Nos. 1 to 26) of the Main Street Bridge were checked and approved, as were also the shop plans (sheets Nos. 1 to 17) of the Canal Street Bridge. The plans of the Polk Street Bridge, furnished by the Frank M. Montgomery Company, were checked and returned with the request that certain changes be made.

Besides the work reported above, the engineering corps were principally engaged in taking flow measurements and in computing current and final estimates.

From the 17th to the end of the month a party made topographical surveys at Jackson Creek below Millsdale.

I estimate that the expenses of this Department for the month of September will be \$100,000.00.

Respectfully submitted,

(Signed)

LEHAM RANDOLPH.

Chief Engineer.

**SANITARY DISTRICT OF CHICAGO — ENGINEERING DEPARTMENT.**  
**CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF AUGUST, 1901.**

CLASSIFICATION.	ENGINEERING EXPENSES			Construc- tion.
	Salaries.	Supplies, Etc.	Totals.	
Maps and Plans for General Use.....	\$ 367 55	\$ 54 84	\$ 321 94	.....
Right of Way.....	29 50	45	29 65	.....
Hydraulic Measurements.....	629 75	154 24	1,063 90	.....
Mortar, Sand and Cement Tests.....	243 75	.....	243 75	.....
Photographs of Works.....	454 17	12 92	467 09	.....
Thirty-ninth Street Conduit.....	108 75	.....	108 75	.....
Chicago River, Dredging, Docking, etc.....	1,470 15	293 44	1,763 59	\$ 7,487 58
State Street Bridge, Chicago River.....	100 50	3 31	102 81	.....
Randolph Street Bridge, Chicago River.....	156 90	10 00	166 90	1,925 00
Harrison Street Bridge, Chicago River.....	117 51	7 50	125 11	.....
Polk Street Bridge, Chicago River.....	80 10	.....	80 00	.....
C. T. R. Co.'s Bridge, Chicago River.....	150 00	6 70	156 70	17,98 1 80
Eighteenth Street Bridge, Chicago River.....	25 00	.....	25 00	.....
Canal Street Bridge, Chicago River.....	404 75	53 46	458 22	5,001 50
Main Street Bridge, Chicago River.....	551 75	266 16	817 92	9,901 74
Ashtland Avenue Bridge, Chicago River.....	446 67	19 88	466 55	4,824 89
Main Channel and River Diversion Excavation, etc.....	578 88	65 00	643 88	10,500 00
Pan Handle Permanent Bridge, Main Channel, Section "O".....	80 00	.....	80 00	.....
Belt Railway Company of Chicago Permanent Bridge, Main Channel, Section "K".....	140 00	2 00	142 00	.....
Disposal Works and Joliet I. object.....	642 50	48 99	691 49	9,742 29
Totals.....	\$6,952 45	\$1,012 24	\$7,964 79	\$66,864 45

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—VALUES.  
Amount Earned During August, 1901.

DESIGNATION.	CHICAGO RIVER.		MAIN CANAL.		Controlling Works.	Joliet Project.	Totals.
	Dredging, Docking, Etc.	Bridges.	Excavation etc.	NEL.			
Chicago River, dredging, docking, etc.	\$8,839 40	.....	.....	.....	.....	.....	\$ 8,839 40
Section "O".....	.....	.....	\$ 5,250 00	.....	.....	.....	5,250 00
Section "N".....	.....	.....	5,250 00	.....	.....	.....	5,250 00
Controlling Works.....	.....	.....	.....	.....	\$ 1,536 54	.....	1,536 54
Section 17.....	.....	.....	.....	.....	.....	\$ 9,378 00	9,378 00
Randolph Street Bridge, Chicago River.....	.....	\$ 2,300 00	.....	.....	.....	.....	2,300 00
C. T. R. R. Co.'s Bridge, Chicago River.....	.....	4,488 81	.....	.....	.....	.....	4,488 81
Canal Street Bridge, Chicago River.....	.....	5,716 00	.....	.....	.....	.....	5,716 00
Main Street Bridge, Chicago River.....	.....	11,563 99	.....	.....	.....	.....	11,563 99
Ashland Avenue Bridge, Chicago River.....	.....	4,902 93	.....	.....	.....	.....	4,902 93
Totals.....	\$8,839 40	\$23,821 73	\$10,500 00	.....	\$ 1,536 54	\$ 9,378 00	\$ 58,795 67

## SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—QUANTITIES.

*Amount Done During August, 1901.*

DESIGNATION.	Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Masonry and Concrete. Cu. Yds.	Piles. Lin. Ft.
Chicago River, dredging, docking, etc.....	35,000	.....	.....	.....
Section "O".....	15,000	.....	.....	.....
Section "N".....	15,000	.....	.....	.....
Section 17.....	17,000	5,600	.....	.....
C. T. T. R. R. Co's Bridge, Chicago River.....	.....	.....	36 09	4,658
Canal Street Bridge, Chicago River.....	.....	.....	.....	6,500
Main Street Bridge, Chicago River.....	4,500	.....	471.00	3,100
Ashland Avenue Bridge, Chicago River.....	.....	.....	303 00	2,065
Totals.....	86,500	5,600	810.09	16,818

REPORT IN REFERENCE TO COMPLETION OF CONTRACT FOR SUBSTRUCTURE OF THE CHICAGO TERMINAL TRANSFER RAILROAD COMPANY'S BRIDGE CROSSING THE CHICAGO RIVER NEAR TAYLOR STREET.

Mr. Smyth, member of the Committee on Engineering, presented a report from the Committee, accompanied by the final certificate of the Chief Engineer as to the completion of the contract with the Pennsylvania Steel Company for the substructure of the Chicago Terminal Transfer Railroad Company's Bridge, crossing the Chicago River between Twelfth and Taylor streets.

The report is as follows:

CHICAGO, September 24, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering presents herewith the final certificate of the Chief Engineer of the District for seventeen thousand, nine hundred eighty-one and eighty one hundredths (\$17,981.80) dollars in favor of the Pennsylvania Steel Company for work done by said company, covered by its contract, dated May 15, 1899, and also in accordance with sundry orders issued by the Chief Engineer and the Bridge Engineer under the "extra work" clause of the said contract for the substructure of the bridge of the Chicago Terminal Transfer Railroad Company, across the Chicago River near Taylor Street, in the City of Chicago, and

reports that the Committee has examined such certificate and considered the subject matter of the work done under said contract and recommends as follows:

That the President and Clerk of the District be authorized and directed to pay, on the voucher of the Chief Engineer, the sum found to be due in said final certificate attached, to-wit: the sum of seventeen thousand, nine hundred eighty-one and eighty one hundredths (\$17,981.80) dollars, when said company shall have filed with the District a receipt and release in full for said amount.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,  
ZINA R. CARTER,  
FRANK X. CLOIDT,  
FRANK WENTER,  
ALEX J. JONES.

*Committee on Engineering.*

On motion of Mr. Smyth, seconded by Mr. Webb, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Carter, Cloidt, Jones, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

The following is the final certificate of the Chief Engineer:

CHICAGO, August 30, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—I hereby certify that the Pennsylvania Steel Company has completed the substructure of the Chicago Terminal Transfer Railroad Bridge across the Chicago River near Taylor Street, in the City of Chicago, in accordance with the terms of the contract with this District, therefore under date of May 15, 1899, and also in accordance with sundry orders issued by the Chief Engineer and the Bridge Engineer under the extra work clause of the contract. The written orders of the former are dated November 10, 1899, December 5, 1899; and of the latter are dated October 15, 1899. In the matter of time of completion the contractors are seriously delinquent. In other regards the work complies with the terms of the contract and the specifications forming a part thereof. The contract between this Dis-

trict and the Chicago Terminal Transfer Railroad Company, dated December 6, 1898, makes all of this work "subject to the inspection and acceptance of the Engineer of said Railroad Company." I have the acceptance of the said Engineer under date of August 29, 1901, in the following language:

"Referring to yours of August 28, regarding Taylor Street Bridge substructure, I will advise you that on the part of this Company the entire substructure is constructed in a first-class workmanlike manner, strictly in accordance with plans and specifications duly approved.

(Signed) "F. E. PARADIS,

*"Chief Engineer."*

This certificate is given subject to any unaccrued or unmaturred obligations imposed by the contract.

The statement of the volume and value of the work done is as follows:

Excavation, 13,294 cubic yards at 50 cents.....	\$ 6,647 00
Sheet piling and bracing, 576,852 feet B. M. at \$34.....	19,612 96
Timber in foundation and protection, 8,118 feet B. M. at \$14.....	357 19
Piles delivered, 79,306 lineal feet at 18 cents.....	14,291 10
Piles driven in foundation, 29,564 lineal feet at 30 cents.....	8,869 20
Piles driven in protection, 7,296 lineal feet at 30 cents.....	2,188 50
Piles driven on a batter, 140 at \$3.....	1,190 00
Portland cement concrete, 6,523.76 cubic yards at \$5.75.....	37,511 62
Masonry, 1,142.28 cubic yards at \$13.....	14,848 99
Piles in Cofferdam, 297 at \$5.....	1,485 00
Old dock pulled, 222 lineal feet at \$2.....	444 00
Old masonry removed, 214.52 cubic yards at \$3.....	643 56
Old piles pulled, 347 at \$4.....	1,388 00
Placing temporary air pipe.....	1,062 00
Sand filling, 1,394.6 cubic yards at 50 cents.....	697 30
Air pipe.....	1,616 29
Total amount earned.....	\$ 112,732 71
Amount paid on previous estimates..	94,800 91
Amount due and unpaid. ....	\$ 17,931 80

NOTE—The contract price for the air pipe was \$1,000.00 placed at a depth of 28 feet below datum. It was afterwards determined to place it 30 feet below datum and the price for the additional work was figured on a pro rata basis, which made the increased cost \$616.29 or a total of \$1,616.29, as shown.

A number of claims for extra labor and

material have been filed by these contractors which are not covered by this final certificate and which will require careful investigation before any report favorable or adverse can be made upon them.

Respectfully submitted,

(Signed)

ISHAM RANDOLPH,

*Chief Engineer.*

ORDER FOR PAYMENT OF SEMI-ANNUAL  
INTEREST ON THE ELEVENTH ISSUE  
OF BONDS OF THE SANITARY DISTRICT  
OF CHICAGO.

Mr. Carter presented and, seconded by Mr. Baker, moved the adoption of the following order:

*Ordered*—That the Clerk of this District be, and he is hereby, directed to draw a warrant payable to the order of the Treasurer for the sum of forty-seven thousand five hundred dollars (\$47,500) to pay the semi-annual interest accruing October 1, 1901, on the eleventh issue of bonds of the Sanitary District of Chicago outstanding, being two million three hundred and seventy-five thousand dollars (\$2,375,000) at four per cent. per annum; and that the Treasurer be, and he hereby is, directed to pay, said semi-annual interest upon the proper presentation and cancellation of the interest coupons evidencing the same, such payment to be charged to the proper account.

The roll being called, the order as presented was adopted.

*Yeas*—Messrs. Baker, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

PLANS FOR THE CONSTRUCTION OF CONTROLLING WORKS IN THE CHICAGO RIVER REJECTED.

The Clerk presented a communication from Ossian Guthrie, requesting the Board to reconsider its former action disallowing his claim under the advertisement for plans for the construction of controlling works in the Chicago River, heretofore presented; and that he be given permission to answer any objections that may be raised against said plans.

Mr. Carter, seconded by Mr. Baker, moved that, in view of the fact that the Chief Engineer having reported adversely to the plans presented under the advertisement for the construction of controlling works in the Chicago River, all plans and designs heretofore submitted be rejected, and the communication from Mr. Guthrie placed on file.

The roll being called the motion was adopted.

*Yeas*—Messrs. Baker, Carter, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

ADJOURNMENT.

On motion of Mr. Smyth, seconded by Mr. Webb, the Board adjourned.

*A. R. Porter.*  
CLERK

September 25, 1

—7422—

[1901



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

OCTOBER 2, 1901.

OFFICIAL RECORD.

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

REGULAR MEETING.

The Five Hundred and Fortieth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, October 2, 1901, at 2 o'clock P. M.

In the absence of the President, the Vice-President, Mr. Baker, took the chair, and the meeting being called to order, there were then

*Present*—Messrs. Baker, Carter, Cloldt, Legner, Smyth, Webb and Wenter—Seven.

*Absent*—Messrs. Braden and Jones—Two.

Mr. Braden arriving subsequently.

MINUTES.

On motion of Mr. Wenter, seconded by Mr. Carter, the minutes of the regular meeting held September 25, 1901, were approved as printed.

CLERK'S REPORT ON EMPLOYEES.

The Clerk presented the following report, showing the number of persons employed by the Sanitary District for the month ending September 30, 1901, which, by unanimous consent, was ordered printed and placed on file:

CHICAGO, October 1, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the month ending September

\$0, 1901, as the same have been reported to me:

Engineering Department.....	58
Clerical Department. ....	4
Law Department.....	10
Treasury Department.....	1
Police Department.....	18
General.....	8
Maintenance.....	6

Total employes..... 95

Respectfully submitted,

A. R. PORTER,  
Clerk.

(Three enclosures.)

COMMUNICATION PROTESTING AGAINST  
PLANS FOR DRIVING PILES FOR THE  
FOUNDATION OF RANDOLPH STREET  
BRIDGE.

The Clerk presented a communication from Jonathan Abel, owner, and H. Channon Co., tenant, of the premises adjoining the Randolph Street Bridge approaches, protesting against the carrying out of the proposed plans of the District for driving piles for the foundation of the Randolph Street Bridge, now in course of construction.

On motion of Mr. Smyth, seconded by Mr. Wenter, the communication was referred to the Committee on Engineering.

COMMUNICATION FROM F. C. TEIDT IN  
REFERENCE TO LEASING CERTAIN  
ACREAGE LANDS.

The Clerk presented a communication from F. C. Teidt, of Teidtvilleville, Ill., requesting to be informed on what terms a lease or purchase can be made of that part of certain lands belonging to the District described as Lots 4, 5 and 11, in Carrington's subdivision of south one-half, north of the north bank of the River Diversion, being about eight acres.

On motion of Mr. Wenter, seconded by Mr. Carter, the communication was referred to the Committee on Finance.

COMMUNICATION FROM W. B. SMITH IN  
REFERENCE TO CLAIM FOR PLASTER-  
ING WORK AT THE CONTROLLING  
WORKS.

The Clerk presented a communication from W. B. Smith, of Lockport, Ill., claiming that there is due and unpaid the sum

of \$45.00, for labor and material for plastering at the Controlling Works; Mr. Smith alleging that such labor and material was ordered by John H. Larson, contractor for buildings at the Controlling Works.

Mr. Carter, seconded by Mr. Legner, moved that the communication be referred to the Committee on Judiciary with instructions to ascertain the liability of the District in the matter.

The motion prevailed unanimously, and it was so ordered.

PRESIDENT TO SERVE MESSRS. HAYES  
BROTHERS, CONTRACTORS FOR SEC-  
TIONS "N" AND "O," WITH NOTICE TO  
COMPLETE CONTRACT.

Under the head of new business, Mr. Carter stated that Hayes Brothers, contractors for Sections "N" and "O," had failed to complete their contract within the time specified in their agreement, and moved, seconded by Mr. Wenter, that the President of the Board be directed to serve Messrs. Hayes Brothers with notice to complete their contract; and should said contractors fail to comply with such request, then the District to proceed to complete the work on said Sections "N" and "O," and charge the cost thereof to the account of said contractors.

The motion prevailed unanimously, and it was so ordered.

APPOINTMENT OF SPECIAL COMMITTEE  
TO ATTEND PAN-AMERICAN EXPOSI-  
TION ON ILLINOIS DAY.

Mr. Smyth, seconded by Mr. Wenter, moved that the Chair appoint a special committee of three to attend the exercises for the observance of "Illinois Day" at the Pan-American Exposition in Buffalo, October 7, 1901.

The motion prevailed unanimously and it was so ordered.

The Chair thereupon appointed Messrs. Smyth, Braden and Carter as such special committee.

ADJOURNMENT.

On motion of Mr. Legner, seconded by Mr. Wenter, the Board adjourned.

*A. R. Porter*  
Clerk

October 2,]

—7425—

[1901

October 2,]

—7426—

[1901

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

OCTOBER 9 AND 10, 1901.

OFFICIAL RECORD.

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

REGULAR MEETING.

On Wednesday, October 9, 1901, there being no members present at the hour of 2 o'clock P. M., no meeting of the Board was held.

SPECIAL MEETING.

A Special Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Thursday, October 10, 1901, at 2 o'clock, P. M., pursuant to call.

In the absence of the President, the Vice-President, Mr. Baker, presided.

CALL FOR SPECIAL MEETING.

The Clerk then read the call for a Special Meeting as follows:

CHICAGO, October 8, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—At the request of Vice-President William H. Baker, and in accordance with Rule 4 of the Rules and Regulations, I hereby call a Special Meeting of the Board of Trustees of the Sanitary District of Chicago, to be held in the rooms of the Board, Security Building, Chicago, Ill., on Thursday, October 10, 1901, at 2 o'clock, P. M., for the purpose of considering and passing on the payment of current pay-rolls and vouchers of the District, and also for the purpose of receiving and passing on reports of the various committees of the Board of Trustees and for such other business as may properly come before said meeting.

Very respectfully yours,

A. R. PORTER,

*Clerk.*

The Chair thereupon directed the Clerk to call the roll, and there were then

*Present*—Messrs. Baker, Carter, Webb, and Wenter—Four members.

*Absent*—Messrs. Braden, Cloidt, Jones, Legner and Smyth—Five members.

There being no quorum present, on motion of Mr. Carter, seconded by Mr. Wenter, the Board adjourned.

*A. R. Porter.*  
CLERK

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

OCTOBER 16, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Forty-first Regular Meeting of the Board of Trustees of the Sanitary District of Chicago, was held in the rooms of the Board, Security Building, Wednesday, October 16, 1901, at 2 o'clock, P. M.

In the absence of the President, the

Vice-President, Mr. Baker, took the chair, and the roll being called there were then

*Present*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter.  
—Eight members.

The Board was then called to order.

**MINUTES.**

On motion of Mr. Smyth, seconded by Mr. Wenter, the minutes of the regular meeting held October 2, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

Lydon & Drews Company (Canal Street Bridge, October 1, 1901).....	\$ 1,930 95
Lydon & Drews Company (Harrison Street Bridge, October 1, 1901)...	525 00
Lydon & Drews Company (Main Street Bridge, October 1, 1901).....	4,308 97
American Bridge Company (Main Street Bridge, September 30, 1901)...	720 00

Page & Shnable (Ashland Avenue Bridge, October 1, 1901) .....	\$ 2,663 12	
Jackson & Corbett Company (Randolph Street Bridge, October 1, 1901) .....	1,592 50	
Chicago Junction Railway Company (Pan Handle Temporary Bridge, Section O) .....	60 00	
Thos. F. Ryan (Account Water Power Development, Controlling Works) .....	61 67	
Mrs. Thomas O'Brien (Account Water Power Development, Controlling Works) .....	30 22	
Lake Shore Sand Company (Account Water Power Development, Controlling Works) .....	7 23	
A. R. Porter, Clerk (Account Water Power Development, Controlling Works) .....	205 07	
A. R. Porter, Clerk (Account Water Power Development, Controlling Works) .....	556 25	
A. R. Porter, Clerk (Account Water Power Development, Controlling Works) .....	590 23	
Western Stone Company (Account Water Power Development, Controlling Works) .....	209 00	
Heldmaier & Neu (Section 17, October 1, 1901) .....	1,189 17	
John A. Larson (Controlling Works building) .....	800 00	
	<hr/>	\$ 16,344 88

## ENGINEERING DEPARTMENT.

C. Seitz (use of telephone) .....	2 20	
R. Seelig (repairing and adjusting instruments) .....	19 25	
Keuffel & Esser (drafting supplies) .....	7 96	
G. M. Wisner (expense) .....	165 85	
Hans Isak (gauge reading) .....	10 00	
Mrs. Thomas O'Brien (cartage) .....	2 50	
American Water Company (water) .....	10 13	
Samuel L. Hanks (ice) .....	19 50	
The Consumers' Company (water) .....	2 25	
E. B. Spencer (expense) .....	2 10	
Pearson Brothers (blue prints) .....	8 67	
Pittsburgh Testing Laboratory, Limited (inspection bridge material) .....	60 78	
S. W. Wyatt (lumber for boat house) .....	17 17	
Standard Oil Company (oil for launches) .....	34 09	
A. R. Porter, Clerk (Account Dock Lines, Sections N and O) .....	54 00	
Root & James (gasoline launch) .....	469 00	
Charles Wink (expense) .....	7 80	
D. C. Custer (expense) .....	2 64	
William M. McCartney (expense) .....	7 30	
J. E. Grady (expense) .....	14 09	
E. H. Heilbronn (Account Topographical Surveys, Illinois Valley) .....	191 13	
W. G. Derbyshire (Chicago Terminal Transfer Railroad Bridge inspection, September, 1901) .....	100 00	
	<hr/>	\$ 1,207 96

## CLERICAL DEPARTMENT.

George E. Marshall & Co. (stationery) .....	\$ 24 32	
Shea, Smith & Co. (Stationery) .....	17 00	
Samuel L. Hanks (ice) .....	15 00	
The Chicago Towel Supply Company (towelings) .....	7 25	
Cameron. Amberg & Co. (stationery) .....	16 57	
	<hr/>	\$ 80 14

## TREASURY DEPARTMENT.

The Chicago Towel Supply Company (towelings) .....	18 50
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## LAW DEPARTMENT.

The Chicago Chronicle Company (Advertising Account Condemnation Proceedings).....	\$ 149 60	
Samuel L. Hanks (ice).....	7 50	
Chicago Journal (Advertising Account Condemnation Proceedings)...	328 00	
D. Barrett (livery).....	64 00	
Chicago Towel Supply Company (towelings) .....	13 00	
Callahan & Co. (law books).....	4 50	
William A. Bowles (legal services, Bannon & Ray suits, Joliet).....	365 00	
Wilson, Moore & McIlwaine (legal services).....	1,500 00	
	<u>\$</u>	2,431 60

## POLICE DEPARTMENT.

Samuel L. Hanks (ice).....	7 50
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## GENERAL ACCOUNT.

George B. Carpenter & Co. (supplies, Steamer "Juliet") .....	\$ 1 40	
Security Building Receivership (rent of offices, October, 1901)....	478 38	
John R. Neely (streams examination data).....	50 00	
Edwin O. Jordan (streams examination) .....	286 78	
Arthur W. Palmer (services, streams examination, September, 1901) ..	260 63	
John F. Higgins (printing Chief Engineer's annual report for 1899)....	557 08	
	<u>\$</u>	1,634 15

## MAINTENANCE ACCOUNT.

Maloney-Bennett Belting Company (leather hydraulic packing).....	\$ 8 50	
Norton & Co. (salt).....	8 00	
Mrs. Thomas O'Brien (cartage).....	4 85	
Machinists' Supply Company (hardware).....	6 50	
William O'Connell (hardware).....	8 40	
	<u>\$</u>	26 25

## TELEPHONE LINE.

A. R. Porter, Clerk (repairs, August and September, 1901).....	114 00	
Grant total, .....	<u>\$</u>	21,864 48

Mr. Carter, seconded by Mr. Legner, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

## MONTHLY REPORT OF THE TREASURY DEPARTMENT.

The Clerk presented the report of the Treasury Department for the month of September, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

## SANITARY DISTRICT OF CHICAGO.

*Treasurer's Report for September, 1901.**Receipts.*

Balance on hand at date of last report.....	\$ 1,007,810 85
From County Treasurer, Sanitary District Tax Account.....	\$ 100,000 00
From Chicago National Bank, Interest Account .....	736 70
From Equitable Trust Company, Interest Account .....	493 19
From Home Savings Bank, Interest Account .....	328 72
Total cash received for month.....	101,558 61
	<u>\$ 1,109,369 46</u>

*Disbursements.*

Taxes on Land in Will County.....	\$	4 86
Clerical Department.....		947 44
Treasury Department.....		374 99
Engineering Department.....		7,742 01
Construction Account.....		42,941 10
Law Department.....		4,987 74
Maintenance Account.....		888 20
General Account.....		3,942 06
Police Department.....		1,733 28
Telephone Line.....		175 75
Capitalization and Maintenance of Bridges.....		9,763 40
Tax Warrants (Levy 1900).....		7,023 32
Interest Paid on Tax Warrants (Levy 1900).....		516 79
Total cash disbursed.....	\$	80,990 94
Balance this date in banks, as per schedule endorsed hereon.....		1,028,378 52
	\$	1,109,369 46

*Schedule.*

Chicago National Bank.....	\$	402,439 74
Equitable Trust Company.....		400,000 00
Home Savings Bank.....		200,000 00
National Bank of Illinois.....		25,928 78
Total.....	\$	1,028,378 52

CHICAGO, October 10, 1901.

F. M. BLOUNT, *Treasurer.*By S. P. BLOUNT, *Assistant Treasurer.*MONTHLY REPORT OF THE LAW  
DEPARTMENT.

The Clerk presented the report of the Law Department for the month of July, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

CHICAGO, October 10, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Law Department for the month of July, 1901.

The following are the expenses and disbursements:

Attorneys Roll.....	\$	1,976 65
Printing and Stationery.....		14 56
General Expenses.....		48 42
Law Books.....		53 75
Right of Way.....		120 05
Special Counsel.....		1 545 01

Total.....\$ 3 778 44

The following cases were begun during the month:

Carl Geike vs. The Sanitary District of

Chicago, et al, General No. 18,541, in the Circuit Court of Will County. This is a suit for damages to certain land caused by overflow, and is apparently for the same cause of action as the suit previously started by the plaintiff.

The Sanitary District of Chicago vs. The Philadelphia & Reading Coal & Iron Company, et al, General No. 219,520, in the Circuit Court of Cook County. This is a condemnation case to acquire certain property adjacent to the Chicago River.

Sanitary District of Chicago vs. Michael C. McDonald, et al, General No. 219,398, in the Circuit Court of Cook County. This is a petition for the condemnation of premises required to widen the Chicago River.

The Sanitary District of Chicago vs. The City of Chicago, Carter H. Harrison, et al, General No. 219,710, in the Circuit Court of Cook County. This is a bill for a mandatory injunction to compel the City of Chicago to complete the Thirty-ninth Street Conduit. The defendants have filed a demurrer, which has not been disposed of.

In addition to the above, the regular routine work of the office, the general care

of the matters in its charge has occupied the time of this department.

Respectfully submitted,

JAMES TODD,

*Attorney.*

**REPORT TRANSMITTING FORM OF AGREEMENT WITH THE ILLINOIS STONE COMPANY FOR THE PURCHASE OF CERTAIN PROPERTY ADJACENT TO THE CHICAGO RIVER.**

Mr. Carter, Chairman of the Committee on Finance, presented a report from the committee, as follows:

CHICAGO, October 16, 1901.

*To the Honorable, the Board of Trustees of the, Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance reports that it has reached an agreement with the Illinois Stone Company for the purchase of certain property located adjacent to the Chicago River, the acquirement of which is made necessary in the widening, deepening and improving of said river.

Said property is described as follows:

That part of Lot ten (10), Block thirty-five (35), in Canal Trustees' Subdivision of the west half ( $\frac{1}{2}$ ) of Section twenty-one (21), Township thirty-nine (39) North, Range fourteen (14) east of the Third Principal Meridian, and so much of the southeast quarter (S. E.  $\frac{1}{4}$ ) as lies west of the South Branch of the Chicago River, lying southeasterly of a line described as follows:

Beginning at a point in the north line of Twenty-second Street, one hundred fifty-three and ninety-four one-hundredths (153.94) feet east of the northeast corner of Lumber and Twenty-second streets, measured along said north line, running thence northeasterly to a point in the dividing line between Lots five (5) and six (6), in said Block thirty-five (35), one hundred ninety-four and ninety-five one hundredths (194.95) feet distant from the northwest corner of said Lot five (5), measured along said dividing line, containing four thousand, four hundred and eighty (4,480) square feet more or less, situated in the City of Chicago, County of Cook, and State of Illinois.

Your Committee has agreed on behalf of the District to pay for said property the sum of fifty-six hundred (\$5,600.00) dollars also to build a dock along the remaining portion of said property, and to remove the buildings and machinery, or pay for the removal of same.

Your Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to pay the sum of fifty six hundred (\$5,600.00) dollars, when the said Illinois Stone Company shall have executed and delivered to said Sanitary District of Chicago a good and sufficient warranty deed conveying to said District the said above described property free and clear from all incumbrances, and that the President and Clerk be authorized and directed to execute on behalf of the District the agreement in the form as hereto attached, when said agreement shall have been executed by the said Illinois Stone Company.

(Signed)

Z. R. CARTER,

*Chairman.*

WM. H. BAKER,

THOMAS J. WEBB,

FRANK WENTER,

THOMAS A. SMYTH,

WM. LEGNER.

*Committee on Finance.*

On motion of Mr. Carter, seconded by Mr. Cloldt, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth Webb and Wenter—Eight.

*Nays*—None.

The following is the form of agreement with the Illinois Stone Company referred to in the report of the Committee on Finance:

*This Agreement*, made and entered into this 30th day of September, 1901, by and between the Sanitary District of Chicago, party of the first part, and the Illinois Stone Company, a corporation of Chicago, Illinois, party of the second part, witnesseth:

The said party of the second part hereby agrees to convey free and clear of all incumbrances by its warranty deed to said party of

the first part the following described real estate, situated in the City of Chicago, County of Cook and State of Illinois, to-wit:

Traot 58. That part of Lot ten (10), Block thirty-five (35), in Canal Trustees' Subdivision of the west half (W.  $\frac{1}{2}$ ) of Section twenty-one (21), Township thirty-nine (39) North, Range fourteen (14) East of the Third Principal Meridian, and so much of the southeast quarter (S. E.  $\frac{1}{4}$ ) as lies west of the South Branch of the Chicago River, lying southeasterly of a line described as follows:

Beginning at a point in the north line of Twenty-second Street one hundred fifty-three and ninety-four hundredths (153.94) feet east of the northeast corner of Lumber and Twenty-second Streets, measured along said north line; running thence northeasterly to a point in the dividing line between Lots five (5) and six (6) in said Block thirty-five (35), one hundred ninety-four and ninety-five hundredths (194.95) feet distant from the northwest corner of said Lot five (5), measured along said dividing line, containing four thousand four hundred and eighty (4,480) square feet, more or less, for which said party of the first part agrees to pay said party of the second part the sum of five thousand six hundred dollars (\$5,600.00), upon the execution and delivery of said warranty deed aforesaid.

It is further agreed by the party of the first part that as a further consideration for said real estate above described said first party shall build and erect at its own cost and expense a permanent and substantial dock along the entire river frontage of that portion of said Lot ten (10) remaining after the portion thereof above described shall have been excavated and removed by said first party, and that said second party, its successors and assigns, shall have the sole and exclusive right to the use and occupation of said dock, and that said dock when completed shall become the property of said second party, its successors and assigns, with the right to use said dock and the river frontage adjacent thereto for all lawful and proper purposes, one-half of said new dock to be first erected and completed, before the removal by said first party, of the old dock, situated upon the other one half of said premises; and as a further consideration for the conveyance of the property above described, said first party hereby agrees to remove and re-erect in a substantial and workmanlike manner, at its own expense, the stable, engine house, stack, derricks, power houses, engines and boilers now located upon said Lot ten (10) to the places heretofore indicated and pointed out by said second party, said buildings, etc., above mentioned, to be removed at the risk of said first party and to be by it re-erected in substantially the same condition in which said buildings, etc., were

before such removal, and said first party agrees that such removal and re-erection shall be done on or before the first day of March, 1902.

It is further agreed and understood, however, by and between the parties hereto, that if said first party shall fail, refuse, neglect or decline to begin the removal or re-erection of said buildings, etc., above mentioned within twenty (20) days after it shall be requested so to do by said second party, then said second party shall have the right to remove said buildings at its own cost and expense, and said first party agrees to pay said second party in the event said first party fails, refuses, declines or neglects to remove said buildings as above provided, the sum of seven thousand, one hundred and eighty (\$7,180.00) dollars, in full payment for such removal and re-erection and as a complete discharge of the obligation of said first party to remove and re-erect said buildings, etc., said sum of seven thousand, one hundred and eighty (\$7,180.00) dollars, being the estimated cost of the removal and re-erection of said building, which said estimate is made up as follows, to-wit:

For moving stable and placing same on N. W. corner of said lot.....	\$ 1,685 00
For carpenter work on above.....	450 00
For removing and re-erecting engine house and stack.....	1,845 00
For removing and re-erecting two derricks, powder houses, engines and boilers.....	3,000 00
For erecting and taking down temporary derrick.....	200 00
<b>Total.....</b>	<b>\$ 7,180 00</b>

It is further agreed that the building of said dock and the removal of said buildings shall all be done in such manner and at such time as to least interfere with the business now being carried on by said second party upon said Lot 10.

This agreement to be binding in all respects upon the said parties, their successors and assigns.

In witness whereof the said parties have caused these presents to be subscribed by their presidents and secretaries and their corporate seals attached thereto the day and year above written.

SANITARY DISTRICT OF CHICAGO.

By WM. H. BAKER,  
*Acting President.*

And A. R. PORTER,  
*Its Clerk.*

(SEAL)

ILLINOIS STONE CO.

By LUTHER LOOMIS,  
*Its President.*

And JAS. A. HOGAN,  
*Its Secretary.*

(SEAL)

**REPORT IN REFERENCE TO COMPLETION  
OF CONTRACT OF FRANK M. MONT  
GOMERY & COMPANY FOR PLANS AND  
DRAWINGS OF SIX BRIDGES ACROSS  
THE CHICAGO RIVER.**

Mr. Braden, Chairman of the Committee on Engineering, presented a report from the committee, accompanied by the final certificate of the Chief Engineer as to the completion of the contract of Frank M. Montgomery & Company for plans and drawings for six bridges across the Chicago River.

The following is the report:

CHICAGO, October 16, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—The Committee on Engineering herewith presents the final certificate of the Chief Engineer of the District in favor of Frank M. Montgomery & Company, for work covered by its contract, dated May 23d, 1900, for the delivery of the several sets of plans and drawings for Randolph, Eighteenth and Main Street bridges, and for three other points across the Chicago River which have been selected by the Chief Engineer.

Your Committee reports that it has examined said final certificate, and considered the subject matter thereof, and therefore recommends that the President and Clerk be authorized and directed to pay on the voucher of the Chief Engineer the sum of six thousand (\$6,000 00) dollars to said Montgomery Company, when said Company shall have executed in favor of the District a receipt and release in full, releasing and discharging the District from any and all claims or demands arising upon said contract.

Respectfully submitted,

(Signed) JOSEPH C. BRADEN,  
Chairman.

THOMAS A. SMYTH,  
WM. H. BAKER,  
Z. R. CARTER,  
THOMAS J. WEBB,  
FRANK WENTER,  
WM. LEGNER,

*Committee on Engineering.*

On motion of Mr. Braden, seconded by

Mr. Carter, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

The following is the final certificate of the Chief Engineer:

CHICAGO, October 15, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—I hereby certify that Frank M. Montgomery & Company have completed and delivered to me as Chief Engineer of this District each of the several sets of plans and drawings called for by their contract dated May 23, 1900, according to the terms thereof. The bridges for which plans were to be provided in accordance with the said company's contract were Randolph Street, Eighteenth Street and Main Street, and such other three (3) points across the Chicago River as may be selected, six in all; for which the agreed compensation is eighteen thousand (\$18,000) dollars per set of plans and drawings.

The last plans and drawings delivered to me were for Polk Street Bridge.

Total payment to be made by the  
Sanitary District.....\$108,000 00  
Payments made previous to the  
date hereof..... 102,000 00

Balance due on final voucher  
transmitted herewith... ..\$ 6,000 00

Respectfully submitted,

(signed) ISHAM RANDOLPH,  
Chief Engineer.

**REQUISITION.**

The Clerk presented the following requisition:

No. 606. (Engineering Department)  
quarterly supplies, as per schedule attached .....\$482 96

Mr. Braden, seconded by Mr. Legner, moved that the requisition, as read and shown above, be allowed.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

**REQUEST FOR APPOINTMENT OF A COMMITTEE TO URGE UPON THE BOARD OF EQUALIZATION A FAIR AND ADEQUATE ASSESSMENT OF MUNICIPAL FRANCHISE CORPORATIONS.**

The Clerk presented the following communication from the Chicago Teachers' Federation:

*To the Secretary of the Drainage Board:*

DEAR SIR—At the regular meeting of the Chicago Teachers' Federation, a committee was appointed to co-operate with a committee from the City Council for the purpose of urging upon the State Board of Equalization a fair and adequate assessment of the capital stock of municipal franchise corporations. A resolution was also unanimously adopted to call upon all city and county organizations to co-operate with the Council and Federation Committees.

If this plan meets with the approval of your organization, will you please appoint a similar committee, in order that through unity of interest and concentration of effort a more equitable imposition of the public burden may be secured and the financial embarrassment of our city and county relieved.

Respectfully,

THE CHICAGO TEACHERS' FEDERATION.

Drainage Board, Sanitary District of Chicago.

Mr. Smyth, seconded by Mr. Webb, moved that the above communication be referred to the Committee on Finance.

The motion prevailed unanimously and it was so ordered.

**OFFER TO LEASE PREMISES OWNED BY THE DISTRICT IN JOLIET.**

The Clerk read a communication from Mrs. F. N. Hoffman, of Joliet, offering to lease the premises located at Desplaines and Jefferson streets, Joliet, at a rental of \$10.00 per month.

On motion of Mr. Braden, seconded by Mr. Smyth, the communication was placed on file.

**MARSHAL AND ATTORNEY FOR THE BOARD TO REPORT THE NUMBER OF ARRESTS AND DISPOSITION MADE OF CASES IN CONNECTION WITH THE VIOLATION OF CITY ORDINANCES PROHIBITING THE POLLUTION OF THE CHICAGO RIVER.**

Under the head of new business, Mr. Carter moved that the Marshal of the District be ordered to report to the Board the number of arrests made by his Department for violation of the city ordinances prohibiting the pollution of the Chicago River; also that he report all cases wherein the nuisance has been abated through the efforts of the District; and, further, that the Attorney for the Board be directed to make a report showing what disposition has been made of the cases of arrests by the Police Department of the District for violation of the said city ordinances.

The motion was seconded by Mr. Cloldt and prevailed unanimously.

**PROBLEM OF LOWERING TUNNELS IN THE CHICAGO RIVER REFERRED TO THE COMMITTEE ON ENGINEERING.**

Mr. Webb, seconded by Mr. Wenter, moved that the Chair appoint a committee to confer with the city officials and representatives of the traction companies with a view of securing the lowering of the tunnels in the Chicago River before the opening of the navigation season next spring.

Mr. Braden, seconded by Mr. Smyth, moved, as a substitute for Mr. Webb's motion, that the matter in question be referred to the Committee on Engineering for further consideration.

The substitute motion prevailed unanimously, and it was so ordered.

**ADJOURNMENT.**

On motion of Mr. Legner, seconded by Mr. Wenter, the Board adjourned.

*A. R. Porter.*  
CLERK

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

OCTOBER 23, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Forty-second Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, October 23, 1901, at 2 o'clock P. M.

In the absence of the President, the Vice-President, Mr. Baker, took the chair, and the roll being called to there were then

*Present*—Messrs. Baker, Braden, Carter, Cloidt, Legner and Wenter—Six.

*Absent*—Messrs. Jones, Smyth and Webb—Three.

The Board was then called to order.

**MINUTES.**

On motion of Mr. Cloidt, seconded by Mr. Legner, the minutes of the special meeting held October 10, 1901, and of the regular meeting held October 16, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

Jackson & Corbett Company (Randolph Street Bridge, October 15, 1901)	\$ 1,189 25
Lydon & Drews Company (Harrison Street Bridge, October 15, 1901)	.. 1,225 00
Lydon & Drews Company (Canal Street Bridge, October 15, 1901)	.... 1,054 38

Lydon & Drews Company (Main Street Bridge, October 15, 1901).....	\$ 2,889 52
Page & Shuabie (Ashland Avenue Bridge, October 15, 1901).....	771 42
Chicago Junction Railway Company (Pan Handle Permanent Bridge, Section O).....	11 00
Heldmaier & Neu (Section 17, October 19, 1901).....	5,000 00
	<u>\$ 12,080 57</u>

## GENERAL ACCOUNT.

A. R. Porter, Clerk (expense, Steamer Juliet).....	\$ 195 68
Elite Laundry (laundry, Steamer Juliet).....	8 47
	<u>204 15</u>
Grand total.....	<u>\$ 12,284 72</u>

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner and Wenter—Six.

*Nays*—None.

## MONTHLY REPORT OF THE CLERICAL DEPARTMENT.

The Clerk presented the report of the Clerical Department for the months of July, August and September, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report :

CHICAGO, October 23, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith submit the report of the Clerical Department for the months of July, August and September, 1901.

The total expenditures of the District for the months of July, August and September, 1901, were \$524,049.48, \$119,246.13, and

\$156,497.49, respectively, aggregating \$799,793.05, of which amount the sum of \$789,121.48 was paid in regular warrants, and the sum of \$10,671.57 by the Treasurer of the District, for which no warrant was required. Of the amount paid by the Treasurer, the sum of \$2,258.64 was for 1899 tax warrants redeemed, \$7,758.32 for 1900 tax warrants redeemed, and \$454.61 for interest on same.

The total amount expended on account of, and charged to, the Clerical Department was \$2,921.98, of which amount the sum of \$2,800.01 was for salaries and the sum of \$121.97 for general office expenses.

The total amount expended for account of, and charged to, the General Account was \$12,789.84, divided as follows:

Rent of offices, July, August and September, 1901.....	\$ 1,374 99
Printing.....	1,035 95
Advertising.....	98 55
Salaries.....	8,235 00
Streams examination.....	297 50
General expenses.....	1 682 85
Total.....	<u>\$12,789 84</u>

Of the total tax levy warrants heretofore issued, all have been redeemed, except \$10,963.29 of the levy of 1896.



The following is a tabulated statement of the total expenditures for the months of July, August and September, 1901:

ACCOUNT.	REGULAR WARRANTS.			PAID BY TREASURER.			Totals.
	July.	August.	September.	July.	August.	September.	
Engineering Department.....	\$ 16,635 03	\$ 8,096 91	\$ 7,603 15	.....	.....	.....	\$ 32,305 09
Clerical Department.....	1,008 04	952 34	961 40	.....	.....	.....	2,921 98
Law Department.....	3,728 64	3,094 86	5,285 30	.....	.....	.....	12,078 80
Treasury Department.....	375 00	375 00	1,774 43	.....	.....	.....	1,124 99
Police Department.....	1,809 80	1,737 24	1,774 43	.....	.....	.....	5,321 47
General Account.....	4,738 01	3,789 12	4,282 71	.....	.....	.....	12,739 84
Maintenance Account.....	456 45	608 25	760 12	.....	.....	.....	2,022 82
Bond Account, third issue.....	150,000 00	.....	.....	.....	.....	.....	150,000 00
Bond Account, tenth issue.....	50,000 00	.....	.....	.....	.....	.....	50,000 00
Interest on bonds.....	237,975 00	.....	47,500 00	.....	.....	.....	285,475 00
Right of way.....	49 80	10,500 00	.....	.....	.....	.....	10,549 80
Main Channel construction.....	3,713 31	10,500 00	875 00	.....	.....	.....	11,375 00
Bridges construction, Main Channel.....	774 44	2,125 39	500 00	.....	.....	.....	6,388 70
Controlling Works, Lockport.....	4,532 88	1,206 03	331 47	.....	.....	.....	9,511 94
Folies project.....	21,309 38	10,022 84	4,052 50	.....	.....	.....	19,508 22
Bridges construction, Chicago River.....	11,265 13	32,507 00	19,294 75	.....	.....	.....	73,111 13
Capitalization and maintenance of bridges.....	9,763 40	32,533 01	18,288 15	.....	.....	.....	90,101 36
1899 Tax Warrants redeemed.....	.....	.....	.....	\$ 2,358 64	.....	.....	2,358 64
1900 Tax Warrants redeemed.....	.....	.....	.....	.....	\$ 735 00	\$ 7,022 32	7,757 32
Interest on Tax Warrants redeemed.....	.....	.....	.....	.....	44 10	510 79	554 89
Dock and Land Improvements and Rental Account.....	743 60	.....	.....	.....	.....	.....	743 60
Bridgesport Pumping Works.....	2,332 82	175 93	.....	83 72	.....	.....	2,592 47
Taxes on land, Will County.....	135 70	4 89	7 25	.....	.....	.....	147 84
Telephone line.....	150 84	21 25	241 75	.....	.....	.....	398 11
Heidmiller & Neu.....	.....	.....	.....	.....	.....	.....	150 84
<b>Totals.....</b>	<b>\$ 521,697 07</b>	<b>\$ 118,467 03</b>	<b>\$ 148,957 38</b>	<b>\$ 2,352 36</b>	<b>\$ 779 10</b>	<b>\$ 7,540 11</b>	<b>\$ 799,793 05</b>

Respectfully submitted,  
A. R. PORTER,  
Clerk.

## MONTHLY REPORT OF THE LAW DEPARTMENT.

The Clerk presented the report of the Law Department for the month of August, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

CHICAGO, October 10, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith submit the report of the Law Department for the month of August, 1901.

The following are the expenses and disbursements:

Attorney's Roll.....	\$1,976 65
Special assessment.....	4 88
General expenses.....	254 85
General counsel (two months)....	833 88
Right of way.....	10,500 00
Total.....	\$13,569 69

The following cases were begun during the month:

The Sanitary District of Chicago vs. The Western Electric Company, State of Illinois, et al., General No. 230672, in the Circuit Court of Cook County. This is a condemnation case to acquire certain property adjacent to the Chicago River for the purpose of widening the same.

Davis L. Frank vs. The Sanitary District, General No. 216890, in the Superior Court of Cook County. This is a bill in Chancery, praying for an injunction to restrain the defendant from constructing a bascule or Scherzer Rolling Lift Bridge at Randolph Street, on the ground that it will entirely prevent ingress and egress to and from the property of the Star and Crescent Milling Company.

Joseph La Mantia, administrator of the estate of Casino La Mantia, deceased, vs. The Sanitary District of Chicago and the Chicago Bridge and Iron Company, General No. 220185, in the Circuit Court of Cook County. This is a personal injury suit for five thousand dollars.

In addition to the above cases, prosecutions under the statutes and city ordinances have been conducted by this Department, resulting in a fine of \$25.00

and costs being imposed upon nineteen different defendants.

The Department has also been engaged in the examination of abstracts, the preparation of petitions for the condemnation of property adjacent to the Chicago River, and the regular routine work.

Respectfully submitted,

JAMES TODD,  
*Attorney.*

## MONTHLY REPORT OF THE ENGINEERING DEPARTMENT.

The Clerk presented the report of the Engineering Department for the month of September, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

CHICAGO, October 22, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith present the report of the Engineering Department for the month of September, 1901, giving the detailed operations of the same.

The value of construction work done was \$53,684.80. Vouchers were issued on this account to the amount of \$52,487.45.

The engineering expenses for the month were \$7,852.52, divided as follows: Salaries, \$6,909.91; supplies, etc., \$942.61. The amount expended on account of capitalization and maintenance of bridges was \$18,238.15. Details of the above figures are given in tabulated statements submitted herewith.

*Chicago River*—The contractor for dredging and widening the river had three dredges at work during the month as follows: Dredge No. 6 was used between Twelfth and Sixteenth Streets, and at the end of the month had this stretch practically completed. Dredge No. 8 worked between Twenty-second and Halsted Streets, and practically completed these two points. Dredge No. 2 worked on a stretch of the river west of Halsted Street.

The only piece of dock built was about 120 feet at the south abutment of the new Ashland Avenue Bridge. This work was

done in order to keep the bank from caving in and filling up the by-pass on the south side.

No work was done at the State Street Bridge for reasons which you are cognizant of.

The contractors for the substructure of the Randolph Street Bridge were at work all of the month removing piles from the old center-pier, and removing the east retaining wall. On the 26th, work was begun removing the wall between the sidewalk basement and the roadway, and the sidewalk in front of the Channon Building. On the 27th, a dredge was at work dredging out the center of the river where the old center-pier protection was located, completing the same at the end of the month. The work on the substructure proper has progressed very slowly, owing to the fact that the contractors had not procured the channel beams for use in the coffer dams.

At the C. T. T. R. R. Co.'s Bridge, the electricians worked the whole month on the air pipe and compressor for the tail locks, and wiring and adjusting operating machinery and breaks.

The contractor for the substructure of the Harrison Street Bridge began the removal of the old superstructure on the 12th, and on the 30th had it practically removed, together with a part of the east approach. On the 27th, the District was restrained by injunction, instituted by James B. Clow & Sons, from doing any more work on the east side of the river.

The contractor for the substructure of the Canal Street Bridge began excavation in the south coffer dam, and continued same throughout the entire month. Most of the timber work done on the south side of the river consisted of bracing. On the north side, the dam was completed and the top system of bracing was in place at the end of the month. On the 2nd, the north coffer dam was run into by the Steamer "Montana," on the 6th by the Steamer "Susquehanna," and on the 15th by the tug "James A. Quinn," each of which did some damage to the coffer dam.

The contractor for the substructure of the Main Street Bridge carried on operations as follows: The Wakefield dam on the north side was completed; pumping

was started on the 23rd, and, at the end of the month, some excavation was done, and the three systems of bracing were being put in. On the south side the concrete work proceeded in good shape and, at the end of the month, the piers and abutments were nearly completed.

At the Ashland Avenue Bridge the excavation of the north pier was completed on the 24th, concrete work was begun on the 25th and, at the end of the month, the contractors had this work about completed. The substructure will be ready for the superstructure contractor about October 25th.

*Sections "O" and "N."*—The work of excavating the balance of the material remaining in these sections was discontinued on the 3rd. The remaining portion of the Pan Handle temporary trestles was removed by the Lydon & Drews Co. and the lumber landed near the Robey Street Warehouse. In accordance with an agreement with the Sanitary District, Shannon & Chase began sorting lumber near the Warehouse on the 16th.

*Section "K"*—The work of raising the Santa Fe Railway Company's tracks near the Belt Railway Company's crossing was not yet begun.

*Section 15.* The work of concreting the sub tail race wall at the Controlling Works was continued to the 5th, at which time it was completed. Back-filling and leveling off the ground west of the concrete wall was carried on during the interval of wall construction and was continued up to the 25th, at which time it was completed. The work of concreting over the wheel pit was begun on the 17th and completed on the 20th. Four men were engaged up to the 12th cutting a hole through the south wall for water power, at which time it was finished. Miscellaneous work consisted of plastering walls in counter-weight and tube pits in the north and south shelter houses, in repairing the wall at the southeast corner of the basin; in flooring the tower house over the sluice gates, and in removing forms, etc.

The contractor for the work on the buildings put railings around the counter-weight and weir tube pits in the north and south shelter houses and along the stairs leading from the office into the machine

shop. This work was completed on the 19th.

*Section 17*—The dredge continued the work of cleaning up the earth excavation, and the removal of rock in the Upper Basin between Stations 1742+25 and 1749+25, north of Ruby Street, to the end of the month, when same was completed and the entire excavation of this section was finished.

*Telephone Line*—On the 29th, the line was cut between the Pan Handle crossing and the C., M. & N. Ry. Co.'s Bridge and 1,200 feet of copper wire was stolen. The stolen wire was replaced with iron wire on the same day.

In the Drafting Department work was continued on the 200 feet scale map of the North Branch of the Chicago River and the following drawings were made: Map of the South Branch of the Chicago River, showing the property acquired to date; map of Sections N, O and I, showing names of former owners of right of way; map of Section I showing contours, etc.; contour

map of Herbert's land near Milledale, Will County, Ill. from recent survey, and plat and description of property required south of Randolph Street on the west bank of the Chicago River.

The plans for the Polk Street Bridge furnished by Frank M. Montgomery & Co. have been finally checked, accepted and approved. The checking of the shop plans for the Canal and Main Street Bridges has been continued as the plans have been received.

Besides the work reported above, the engineering corps were principally engaged in taking flow measurements, in computing current and final construction estimates and in miscellaneous surveys in the Illinois River Valley.

I estimate that the expenses of this Department for the month of October will be \$100,000.00.

Respectfully submitted,

(Signed)

ISHAM RANDOLPH.

*Chief Engineer.*

## SANITARY DISTRICT OF CHICAGO — ENGINEERING DEPARTMENT.

## CLASSIFIED STATEMENT OF EXPENDITURES TO SEPTEMBER 30, 1901.

CLASSIFICATION.	ENGINEERING EXPENSES			Construc- tion.	Capitaliza- tion.
	Salaries.	Supplies, Etc.	Totals.		
Maps and Plans for General Use.....	\$ 390 40	\$ 9 47	\$ 400 27	.....	.....
Right of Way.....	41 35	1 63	42 98	.....	.....
Hydraulic Measurements.....	672 50	216 87	889 37	.....	.....
Mortar, Sand and Cement Tests.....	205 25	.....	205 25	.....	.....
Photographs of Works.....	125 00	6 60	131 60	.....	.....
Thirty-ninth Street Conduit.....	98 75	.....	98 75	.....	.....
Chicago River, Dredging, Docking, etc.....	1,788 62	279 43	2,068 05	\$19,394 75	.....
State Street Bridge, Chicago River.....	60 00	47 00	107 00	.....	.....
Randolph Street Bridge, Chicago River.....	275 43	52 09	328 42	2,730 00	.....
Harrison Street Bridge, Chicago River.....	138 15	49 47	188 62	825 00	.....
Polk Street Bridge, Chicago River.....	46 65	.....	46 65	6,000 00	.....
C. T. R. R. Co.'s Bridge, Chicago River.....	150 00	.....	150 00	.....	.....
Canal Street Bridge, Chicago River.....	598 16	59 67	657 83	6,187 83	.....
Main Street Bridge, Chicago River.....	617 25	75 50	692 75	8,376 66	.....
Ashland Avenue Bridge, Chicago River.....	427 75	110 64	538 39	8,730 70	.....
Main Channel Excavation.....	527 50	24 30	551 80	875 00	.....
Pan Handle Temporary Bridge, Main Channel, Section "O".....	60 00	1 75	61 75	60 00	.....
Pan Handle Permanent Bridge, Main Channel, Section "O".....	80 00	29	80 29	.....	\$18,288 15
Belt Railway Company of Chicago Permanent Bridge, Main Channel, Section "K".....	616 75	7 00	623 75	4,717 52	.....
Controlling Works and Joliet Project.....	.....	.....	.....	.....	.....
Totals.....	\$6,909 91	\$ 942 61	\$7,852 52	\$52,487 45	\$18,288 15

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—VALUES.  
Amount Earned During September, 1901.

DESIGNATION.	CHICAGO RIVER.		MAIN CHANNEL.		Controlling Works.	Joliet Project.	Totals.
	Dredging, Docking, Etc.	Bridges.	Excavation etc.	Temporary Bridges.			
Chicago River, dredging, docking, etc.....	\$22,051 15	.....	.....	.....	.....	.....	\$ 22,051 15
Pan Handle Temporary Bridge, Section "O".....	.....	.....	\$ 60 00	.....	.....	.....	60 00
Section "N".....	.....	.....	\$ 875 00	.....	\$1,454 60	.....	875 00
Controlling Works at Lockport.....	.....	.....	.....	.....	.....	\$3,729 06	1,454 60
Section 17.....	.....	.....	.....	.....	.....	.....	3,729 06
Randolph Street Bridge, Chicago River.....	.....	\$ 8,120 00	.....	.....	.....	.....	8,120 00
Harrison Street Bridge, Chicago River.....	.....	600 00	.....	.....	.....	.....	600 00
Polk Street Bridge, Chicago River.....	.....	6,000 00	.....	.....	.....	.....	6,000 00
Main Street Bridge, Chicago River.....	.....	9,470 47	.....	.....	.....	.....	9,470 47
Ashland Avenue Bridge, Chicago River.....	.....	4,823 23	.....	.....	.....	.....	4,823 23
Canal Street Bridge, Chicago River.....	.....	7,071 80	.....	.....	.....	.....	7,071 80
<b>Totals.....</b>	<b>\$22,051 15</b>	<b>\$30,514 50</b>	<b>\$ 875 00</b>	<b>\$ 60 00</b>	<b>\$ 1,454 60</b>	<b>\$ 3,729 06</b>	<b>\$ 58,064 30</b>

## SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—QUANTITIES.

*Amount Done During September, 1901.*

DESIGNATION.	Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Masonry and Concrete. Cu. Yds.	Retaining Wall. Cu. Yds.	Piles. Lin. Ft.
Chicago River, dredging, docking, etc...	78,500	.....	.....	.....	.....
Section "N" .....	2,500	.....	.....	.....	.....
Section 17.....	2,525	2,140	.....	95	.....
Randolph Street Bridge, Chicago River...	2,000	.....	.....	.....	.....
Main Street Bridge, Chicago River.....	290	.....	844	.....	1,814
Ashland Avenue Bridge, Chicago River...	1,075	.....	361	.....	945
Canal Street Bridge, Chicago River.....	900	.....	.....	.....	7,120
Totals.....	87,790	2,140	1,205	95	9,879

## REPORT FROM THE MARSHAL OF THE DISTRICT SHOWING THE NUMBER OF ARRESTS MADE AND FINES AND CONVICTIONS SECURED BY THE SANITARY DISTRICT POLICE.

The Clerk presented a report from Edward J. Coen, Marshal of the District, being in compliance with the order of the Board directing the Marshal to report the number of arrests made for violation of the city ordinances prohibiting the pollution of the Chicago River; the report giving the results of the efforts of the Police Department in preventing the dumping of solids and refuse matter into the Chicago River by vesselmen, owners and tenants of dock property during the past nine months. The total number of arrests made and convictions secured were 187; the fines imposed by Police and Justice Courts in these cases amounting to \$1,758.60.

Mr. Cloldt, seconded by Mr. Carter, moved that the report be received and placed on file.

The motion prevailed unanimously, and it was so ordered.

## REPORT TRANSMITTING LEASE WITH C. A. AND V. D. VAN FLEET FOR CERTAIN PREMISES ON JEFFERSON STREET, IN THE CITY OF JOLIET.

Mr. Carter, Chairman of the Committee on Finance, presented a report from Committee, as follows:

CHICAGO, October 21, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Fi-

nance reports herewith a form of lease to be executed by the District, with C. A. Van Fleet and V. D. Van Fleet, doing business as Van Fleet Wood Working Company, for the use of certain property owned by the District in Will County, and more particularly described as follows:

The three-story and basement brick building situated on premises known as No. 1 Jefferson Street, in the City of Joliet. Also 20 feet in the rear of said premises to be used as a driveway.

Said building to be used by them for manufacturing purposes for a term of five (5) years, at an annual rental of four hundred and eighty (\$480.00) dollars, payable in monthly installments of forty (\$40.00) each, on the first day of each month in advance.

Said lease is in conformity with the form of lease heretofore adopted by the Board of Trustees.

The Committee therefore recommends that the President and Clerk of the District be authorized and directed to execute on behalf of the District said lease to the parties as above set forth, the said parties having executed the same and having complied with the terms and conditions thereof, which were deemed necessary as conditions precedent to the execution of said lease.

Respectfully submitted,  
(Signed) Z. R. CARTER,

Chairman.

WM. H. BAKER,  
FRANK X. CLOIDT,  
FRANK WENTER,  
WM. LEGNER,  
Committee on Finance.

On motion of Mr. Carter, seconded by Mr. Cloldt, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden Carter, Cloldt, Legner and Wenter—Six.

*Nays*—None.

The following is the form of lease with C. A. & V. D. Van Fleet for the premises known as No. 1 Jefferson Street, in the City of Joliet, Ill.:

THIS INDENTURE, made this fifteenth (15th) day of October, in the year of our Lord one thousand nine hundred and one (1901) between the Sanitary District of Chicago, a corporation organized and existing under the laws of the State of Illinois, party of the first part, and C. A. Van Fleet and V. D. Van Fleet, doing business under the firm name and style of Van Fleet Wood Working Company, party of the second part:

WITNESSETH, That the said party of the first part, for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, their executors, administrators and assigns, has demised and leased to the said party of the second part all those premises situate, lying and being in the County of Will and State of Illinois, known and described as follows, to-wit:

The three-story and basement brick building situated on premises known as Number one (1) Jefferson Street in the City of Joliet, also twenty feet in the rear of said premises to be used for driveway, excepting therefrom the Main Drainage Channel of the Sanitary District of Chicago and a strip of land two hundred (200) feet wide on each side of said channel and adjacent thereto.

To have and to hold the above described premises, with the appurtenances, unto the said party of the second part, their executors, administrators and assigns, from the first (1st) day of November, in the year of our Lord one thousand nine hundred and one (1901) for, and during and until the thirty-first (31st) day of October, one thousand nine hundred and six (1906).

It is further expressly covenanted and agreed, however, by and between the parties aforesaid, that said party of the first part, its successors or assigns, reserves to itself the right, at any time, at its election, to declare said lease terminated and, either with or without process of law, and using such force as may be necessary in so doing, to re-enter said demised premises and again repossess and

enjoy said premises as in its first and former state. Said party of the first part hereby covenants and agrees, in case it does terminate this lease as above provided, and for no cause given by said party of the second part, to pay to said party of the second part such sum of money as shall be appraised as damages caused by such termination of this lease, said damages to be appraised by a board of three arbitrators, one to be appointed by the party of the first part and one by the party of the second part and said two so appointed to choose a third one. The award of said Board of Arbitrators to be final and binding upon both parties to this lease.

And the said party of the second part, in consideration of the leasing of the premises aforesaid by the said party of the first part to the said party of the second part, does covenant and agree with the said party of the first part, its successors and assigns, to pay the said party of the first part, as rent for said demised premises, at the office of first party, in Chicago, the sum of twenty four hundred (\$2,400) dollars in monthly installments of forty (\$40.00) dollars each, due and payable on the first day of each and every month in advance. And it is further covenanted and agreed between the parties aforesaid that the said party of the second part shall insure the said building for the benefit of said party of the first part for the sum of two thousand (\$2,000) dollars and pay the premium thereon; said policy to be delivered to the said first party after execution and to be for the term of five years.

It is further covenanted and agreed by the said party of the second part that they will pay, or cause to be paid, all water rates and all taxes and assessments that may be laid, charged or assessed on said demised premises, pending the existence of this lease, or if at any time after any tax, assessment or water rate shall have become due or payable, the party of the second part, or their legal representatives, shall neglect to pay such water rates, tax or assessment, it may be lawful for the party of the first part to pay the same at any time thereafter, and the amount of any and all such payments so made by the party of the first part shall be deemed and taken and are hereby declared to be so much additional and further rent for the above demised premises due from and payable by the party of the second part; and may be collected in the same manner by distress or otherwise, as is hereinafter provided for the collection of other rents to grow due thereon.

And it is expressly understood and agreed by the said party of the second part hereto, for their heirs, executors, administrators and assigns, that the whole amount of rent re-



served and agreed to be paid for said above demised premises, and each and every installment thereof, shall be and is hereby declared to be a valid and first lien upon any and all buildings and improvements on said premises, or that may at any time be erected, placed or put on said premises by said party of the second part, their heirs, executors and administrators or assigns, and upon his or their interests in this lease and the premises hereby demised; and that whenever and as often as any installment of rent or any other amount above declared to be deemed and taken as rent shall become due and remain unpaid for one day after the same becomes due and payable, said party of the first part, its successors, agent, attorney, or assigns, may sell at public auction, to the highest bidder for cash, after having first given ten days' notice of the time and place of such sale, in some newspaper published in Will County, all the buildings and improvements on said premises, and all the right, title and interest acquired by said party of the second part under this lease to the premises herein described, and as the attorney of said party of the second part—hereby irrevocably constituted—may make to the purchaser or purchasers thereof a suitable and proper transfer, bill of sale, or deed of the same, and out of the proceeds arising from such sale, after first paying all costs and expenses of such sale, including commissions and attorneys' fees, retain to said first party the whole amount due on said lease up to the date of such sale, rendering the surplus, if any, to said party of the second part, their heirs, executors, administrators, agent, attorney or assigns, which sale shall be a perpetual bar to and against all rights and equities of said party of the second part, their heirs and assigns, in and to the property sold.

It is expressly covenanted and agreed by said party of the second part, their executors, administrators and assigns, that they will use said above described premises for manufacturing purposes only, and that they will not use said premises, nor suffer them to be used, for the sale of wines, ales, liquors, or any other intoxicating beverages whatsoever; or for the purpose of gambling in any manner whatsoever.

And the party of the second part further covenants with the party of the first part that they will keep said demised premises in a clean and wholesome condition, in accordance with the ordinances and regulations of the County of Will, and directions of the health officers, and that, at the expiration of the time in this lease mentioned they will yield up said premises to the party of the first part in as good condition as when the same were entered upon by the party of the second part,

loss by fire or inevitable accident and ordinary wear excepted.

And it is further agreed by the party of the second part that neither they nor their legal representatives will underlet said premises, or any part thereof, or assign this lease, without the written assent of said party of the first part first had and obtained thereto; nor use or suffer them to be used for any other purpose than that above mentioned.

It is expressly understood and agreed by and between the parties aforesaid, that if the rent above reserved, or any part thereof, shall be behind or unpaid on the day of payment whereon it ought to be paid, as aforesaid, or if default shall be made in any of the covenants herein contained to be kept by the party of the second part, their executors, administrators or assigns, it shall be lawful for the party of the first part, or its successors, agent, attorney or assigns, at its election, to declare said term ended, and into the said demised premises, or any part thereof, either with or without process of law, to re-enter, and the party of the second part, or any other person or persons, occupying, in or upon the same, to expel, remove and put out, using such force as may be necessary in so doing, and the said premises again to repossess and enjoy as of its first and former estate, and to distrain for any rent that may be due thereon upon any property belonging to the party of the second part, whether the same be exempt from execution and distress by law or not; and the party of the second part in that case hereby waives all legal rights which they now have or may have, to hold or retain any such property under any exemption laws now in force in this state, or in any other way, meaning and intending hereby to give the party of the first part, its successors, agent, attorney or assigns, a valid and first lien upon any and all the goods, chattels, or other property belonging to the party of the second part as security for the payment of said rent, in manner aforesaid, anything hereinbefore contained to the contrary notwithstanding. And if at any time said terms shall be ended at such election of said party of the first part, its successors, agent, attorney or assigns, as aforesaid, or in any other way, the party of the second part do hereby covenant and agree to surrender and deliver up said above described premises and property peaceably, to the said party of the first part, its successors, agent, attorney or assigns, immediately upon the determination of said term as aforesaid; and if they shall remain in possession of the same one day after notice of such default, or after the termination of this lease, in any of the ways above named, they shall be deemed guilty of a forcible detainer of the premises under the statute, and shall be subject to all the condi-

tions and provisions above named, and to eviction and removal, forcibly or otherwise, with or without process of law, as above stated.

And it is further understood and agreed by the said party of the second part that neither the right given in this lease to said party of the first part to collect the rent that may be due under the terms of this lease, by sale or any proceedings under the same shall in any way affect the right of said party of the first part to declare this lease void and the term hereby created ended, as above provided, upon default made by said party of the second part.

And the said party of the second part hereby waives their right to any notice from said party of the first part of its election to declare this lease at an end, under any of its provisions, or any demand for the payment of rent, or the possession of premises leased herein; but the simple fact of the non-payment of the rent reserved shall constitute a forcible detainer as aforesaid.

The said party of the second part further agrees not to remove any buildings or other improvements from said premises without written consent of said party of the first part, and that the said second party shall pay and discharge all costs and attorneys' fees and expenses that shall arise from enforcing the covenants of this indenture by the party of the first part.

It is further understood and agreed that all the conditions and covenants contained in this lease shall be binding upon the heirs, executors, administrators, successors and assigns of the parties to these presents, respectively.

In witness whereof, the said parties have hereunto set their hands and seals the day and year first above written.

SANITARY DISTRICT OF CHICAGO.

[SEAL]

By WM. H. BAKER,  
Vice President.

Attest:

A. R. PORTER,

Clerk.

SEAL]

C. A. VAN FLEET.  
V. D. VAN FLEET.

# REQUEST FOR SETTLEMENT OF CLAIM FOR DAMAGES TO ACREAGE PROPERTY.

The Clerk presented the following communication:

JOLIET, Ill., October 16, 1901.

Trustees of the Sanitary District of Chicago,  
Chicago, Ills.

GENTLEMEN—As guardian of Rolland E. Stevens, a minor, who is owner of 36 acres in Section 2, Township of Channahon, this county,

and other lands, I beg to ask you for a settlement of the damages to the east part of said 36 acres, caused by the continuous overflow of the land.

About 25 acres of this land is used as a pasture in connection with the balance of the farm in Section 3.

Previous to the completion of your Channel, the lower part of this land was excellent pasture ground, it being low, was not overflowed more than once or twice each season, but now, ten or twelve acres of the land are under water all the time and cattle cannot go on to the ground.

If you will name a time when I can take the matter up with you personally, I shall be glad to do so.

Very respectfully,

GEORGE H. MONROE.

Mr. Braden, seconded by Mr. Wenter, moved that the communication be referred to the Law Department, with instructions to report to the Board as to the liability of the District in the matter referred to.

The motion prevailed unanimously, and it was so ordered.

## ADVERTISING FOR BIDS FOR DREDGING AND OTHER WORK IN THE CHICAGO RIVER FOR THE YEAR 1902, REFERRED TO THE COMMITTEE ON ENGINEERING.

Under the head of new business, Mr. Carter moved that the Chief Engineer be directed to prepare an advertisement for bids for dredging and other work to be done in the Chicago River during the year 1902; and that the Clerk of the Board be authorized to insert such advertisement in one of the newspapers published in each of the following cities: Chicago, Buffalo, Duluth and Detroit.

The motion was seconded by Mr. Wenter.

Mr. Braden, seconded by Mr. Cloldt, moved as a substitute for Mr. Carter's motion, that the matter in question be referred to the Committee on Engineering.

The substitute motion prevailed unanimously, and it was so ordered.

## ADJOURNMENT.

On motion of Mr. Braden, seconded by Mr. Cloldt, the Board adjourned.

L. C. LEGNER,  
Acting Clerk.

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

OCTOBER 30, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Forty-third Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, October 30, 1901, at 2 o'clock P. M.

In the absence of the President, the

Vice-President, Mr. Baker, took the chair, and the roll being called there were then

*Present*—Messrs. Baker, Braden, Carter, Cloidt, Legner, Smyth, Webb and Wenter  
—Eight members.

The Board was then called to order.

**MINUTES.**

On motion of Mr. Carter, seconded by Mr. Legner, the minutes of the regular meeting held October 23, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**PAY ROLLS.**

Engineering Department (Chief Engineer's roll, October, 1901).....	\$	7,642 10
Clerical Department (Clerk's roll, October, 1901).....		958 33
Law Department (Attorney's roll, October, 1901).....		2,126 65
Treasury Department (Treasurer's roll, October, 1901).....		375 00

General Account (General roll, October, 1901).....	\$ 205 00	
General Account (Trustees' roll, October, 1901).....	2,333 83	
General Account (streams examination, October, 1901).....	1,999 51	
		\$ 4,537 84
Police Department (Marshal's roll, October, 1901).....		1,733 28
Maintenance Account (Controlling Works, October, 1901).....		550 00
Total.....		\$ 17,923 20

## MAINTENANCE ACCOUNT.

G. M. Wisner (expense).....	\$ 11 69
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## LAW DEPARTMENT.

H. M. Christie' (services, case Harlev vs. District).....	\$ 600 00
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## GENERAL ACCOUNT.

Peabody Coal Company (coal, Steamer Juliet, August, 1901) .. . . .	\$ 149 80	
Peabody Coal Company (coal, Steamer Juliet, September, 1901).....	67 50	
		\$ 217 30
Grand total....		\$ 18,752 19

Mr. Carter, seconded by Mr. Cloldt, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered.

Yeas—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter—Eight.

Nays—None.

## MONTHLY REPORT OF THE LAW DEPARTMENT.

The Clerk presented the report of the Law Department for the month of September, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

CHICAGO, October 25, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith submit the report of the Law Department for the month of September, 1901.

The following is a statement of the expenditures for the month.

Attorneys Roll.....	\$ 2,126 65
Expense.....	240 49
Stationery and Advertising.....	166 10
Legal Services .....	2,782 06
Total.....	\$ 5,235 30

The following suits were begun during the month:

The American Trust and Savings Bank, as trustee, etc., vs. the Sanitary District of Chicago, in the Circuit Court of Will County. This is a damage suit for \$2,000.00 for causing the inundation of certain premises.

James Sanford and Mathew Wilson et al. vs. the Sanitary District of Chicago, No. 9,368, in the District Court of the United States. This is a suit in admiralty for \$4,842 64 for damages to the steamer S. M. Stephenson.

The following condemnation suits have been begun:

Sanitary District of Chicago vs. the Chicago Terminal Transfer Railway Company et al., General No. 229,996, in the Circuit Court of Cook County.

Sanitary District of Chicago vs. Eugene H. Pearson, Trustee et al., Gen. No. 220,965, in the Circuit Court of Cook County.

Sanitary District of Chicago vs. the Cosmopolitan Electric Company et al., Gen. No. 228,893, in the Circuit Court of Cook County.

Sanitary District of Chicago vs. Livingston W. Fargo et. al., Gen. No. 220,892, in the Circuit Court of Cook County.

Sanitary District of Chicago vs. Chicago Terminal Transfer Company, City of Chi-

ago, et al., Gen. No. 220,891; in the Circuit Court of Cook County.

The three following suits are for damages to real estate adjacent to the Desplaines River caused by overflow, and are for \$5,500.00 each:

**Peter Conroy vs. The Sanitary District of Chicago**, Gen. No. 18,584, in the Circuit Court of Will County.

**James Conroy vs. Sanitary District of Chicago**, Gen. No. 18,585, in the Circuit Court of Will County.

**Jacob Adler vs. Sanitary District of Chicago**, Gen. No. 18,586, Circuit Court of Will County.

**James B. Clow & Sons vs. Sanitary District of Chicago**, Gen. No. 221,454, in the Circuit Court of Cook County. This is a bill for injunction to restrain the defendant from erecting a bascule bridge across the Chicago River at Harrison Street. A temporary injunction has been issued by Judge Brown and served upon the Sanitary District.

In the case of **Jas. Ray vs. The Sanitary District**, in the Circuit Court of Will County, a verdict was rendered for the defendant after a trial lasting upwards of a week. This was a suit for \$5,000 for damages to certain land caused by overflow.

The preparation for the trial of certain pending suits and the trial of the case of **Harlev vs. The Sanitary District** has occupied the time of this department.

Respectfully submitted,

JAMES TODD,

Attorney.

REPORT IN REFERENCE TO JUDGMENT OBTAINED AGAINST THE DISTRICT BY D. C. DEEGAN.

Mr. Legner, Chairman of the Committee on Judiciary, presented a report from the Committee as follows:

CHICAGO, Oct. 29, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Judiciary reports that D. C. Deegan obtained a judgment on December 15th, 1900, against

the District before George H. Woods, Justice of the Peace, in the sum of thirty-one and ten one-hundredths (\$31.10) dollars for groceries and supplies furnished the Steamer Juliet.

The Committee having carefully examined the subject matter of said judgment, advises that same should be paid, and therefore recommends that the President and Clerk of the District be authorized and directed to pay to the said D. C. Deegan the sum of thirty-one and ten one-hundredths (\$31.10) dollars in full satisfaction of said judgment and costs, when said Deegan shall have given a proper receipt therefor.

Respectfully submitted,

(Signed)

WM. LEGNER,

Chairman,

Z. R. CARTER,

WM. H. BAKER,

THOMAS J. WEBB

THOMAS A. SMYTH,

FRANK X. CLOIDT,

FRANK WENTER.

Committee on Judiciary.

On motion of Mr. Legner, seconded by Mr. Cloidt, the report was adopted and the recommendation contained therein concurred in.

Yeas—Messrs. Baker, Braden, Carter, Cloidt, Legner, Smyth, Webb and Wenter—Eight.

Nays—None.

REPORT IN REFERENCE TO PURCHASE OF CERTAIN PROPERTY ADJACENT TO THE CHICAGO RIVER FROM THE W. L. SCOTT COMPANY.

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee, as follows:

CHICAGO, October 29, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Finance reports that it has reached an agreement with The W. L. Scott Company, for the purchase of certain property located adjacent to the Chicago River, the acquirement of which is made necessary in the widen-

ing, deepening and improving of said river. Said property is described as follows:

That part of Lot one (1) in D. Kreigh's Subdivision of south fraction of west half (W.  $\frac{1}{2}$ ) of northwest quarter (N. W.  $\frac{1}{4}$ ) of Section twenty-eight (28), Township thirty-nine (39) North, Range fourteen (14) East of the Third Principal Meridian (lying north of Archer Road), lying north of the following described line:

Beginning at a point in the west line of Lot six (6) in H. L. Stewart and others' Subdivision of Lots eleven (11) to twenty (20) in Block two (2) of South Branch Addition of southeast fraction of northwest one-quarter (N. W.  $\frac{1}{4}$ ) of Section twenty-eight (28), Township thirty-nine (39) North, Range fourteen (14) East of the Third Principal Meridian, one hundred fifty-two and ninety-five one-hundredths (152.95) feet distant from the southwest corner of said Lot six (6) measured along said west line; running thence westerly one hundred and forty-six and thirteen one-hundredths (146.13) feet on a line which intersects the east line of Halsted Street at a point six hundred and twenty and seventy-eight one-hundredths (620.78) feet north of the northeast corner of Halsted Street and Archer Avenue; running thence southwesterly to a point in the west line of said Lot one (1), said point being five hundred and ninety-four and seventy-three one-hundredths (594.73) feet distant from said northeast corner of Halsted Street and Archer Avenue, containing forty-two hundred and eighty-seven and thirty-two one-hundredths (4,287.32) square feet, more or less; also

That part of Lots five (5) and six (6) in H. L. Stewart and others' Subdivision of Lots eleven (11) to twenty (20), in Block two (2), of South Branch Addition of southeast fraction of northwest one-quarter (N. W.  $\frac{1}{4}$ ) of Section twenty-eight (28), Township thirty-nine (39) North, Range fourteen (14), East of the Third Principal Meridian (except fifteen (15) acres from the west side and eight (8) acres from the north end thereof), lying north of the following described line:

Beginning at a point in the west line of Lot six (6) in H. L. Stewart and others' Subdivision, one hundred and fifty-two and ninety-five one-hundredths (152.95) feet

distant from the southwest corner thereof, measured along said west line; running thence easterly to the point of intersection of the present (July, 1901) south dock line of the South Branch of the Chicago River with the east line of Lot four (4) in said H. L. Stewart and others' Subdivision, said point of intersection being one hundred and sixty-two and thirty-four one-hundredths (162.84) feet distant from the southeast corner of said Lot four (4) measured along the east line of the same, containing fifty-nine hundred and forty and eighty-one one-hundredths (5,940.81) square feet, more or less, situated in the City of Chicago, County of Cook and State of Illinois.

The Committee has agreed, on behalf of the District, to pay for said property the sum of eleven thousand five hundred and six and sixty-six one-hundredths (\$11,506.66) dollars; and to build a dock along the remaining portion of said property; also to pay the further sum of forty-one hundred and twenty-nine (\$4,129.00) dollars for the removal of buildings and machinery now located upon said property.

Your Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to pay, on the voucher of the Attorney, the sum of fifteen thousand six hundred and thirty-five and sixty-six one-hundredths (\$15,635.66) dollars to the said W. L. Scott Company, when the said company shall have executed and delivered to the Sanitary District of Chicago a good and sufficient warranty deed conveying to said District the said above described property free and clear from all incumbrances.

Respectfully submitted,

(Signed)

Z. R. CARTER,

*Chairman.*

WM. H. BAKER,  
THOMAS J. WEBB,  
THOMAS A. SMYTH,  
WM. LEGNER,  
FRANK X. CLOIDT,  
FRANK WENTER,  
*Committee on Finance.*

Four (4) enclosures.

On motion of Mr. Carter, seconded by Mr. Cloidt, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

**PAYMENT OF INDEMNITY TO CHICAGO TERMINAL TRANSFER RAILROAD COMPANY FOR REPAIRS AND MAINTENANCE OF THE EIGHT-TRACK BRIDGE, CROSSING THE MAIN CHANNEL ON THE LINE OF CAMPBELL AVENUE.**

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee with reference to, and accompanied by, the report of Chief Engineer Isham Randolph, and the joint certificate of the Chief Engineer of the District and the Chief Engineer of the Chicago Terminal Transfer Railroad Company as to the amount of indemnity to be paid for the cost of maintenance and repairs on that part of the Eight-Track Bridge controlled and used by said company.

The following is the report:

CHICAGO, October 29, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance herewith report that the Chief Engineer of the District and the Chief Engineer of the Chicago Terminal Transfer Railroad Company, acting together under the provisions of the agreement between the Sanitary District of Chicago and the receiver of the Chicago and Northern Pacific Railroad Company, under date of November 14th, 1895, and also in compliance with the supplemental agreement between the said parties entered into on June 1st, 1897, with reference to the payment to be made to the said railroad company as an indemnity for the cost of maintenance and repairs of the Eight-track Bridge, crossing the Main Channel on the line of Campbell Avenue, under the terms of said contract, have found that the sum to be paid to the said company amounts to eighteen thousand two hundred thirty-eight and fifteen one-hundredths (\$18,238.15) dollars.

The Committee advises that the District has several claims against the said Chicago Terminal Transfer Railroad Company,

amounting to the sum of five hundred and sixty-six and sixty-two one-hundredths (\$566.62) dollars, for work done by J. R. Lavis for drilling holes for dowels and piers, and by John Ries for cutting recesses in stone for placing of nuts on dowels sunk into piers, and after having carefully examined the same recommends that said sum be retained out of the moneys now due the said company.

Your Committee therefore recommends that the President and Clerk of the District be authorized and directed to pay to the said Chicago Terminal Transfer Railroad Company the sum of seventeen thousand six hundred seventy-one and fifty-three one-hundredths (\$17,671.53) dollars, when said company shall have executed a proper receipt therefor.

Attached hereto is the certificate of the said engineers for filing.

Respectfully submitted,

(Signed) Z. R. CARTER,  
Chairman.  
WM. H. BAKER,  
THOMAS J. WEBB,  
THOMAS A. SMYTH,  
WM. LEGNER,  
FRANK X. CLOIDT,  
FRANK WENTER,  
Committee on Finance.

On motion of Mr. Carter, seconded by Mr. Wenter, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

The following is the report of Chief Engineer Randolph:

CHICAGO, October 28, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I transmit herewith the joint certificate of the Chief Engineer of the Chicago Terminal Transfer Railroad Company and the Chief Engineer of this District, covering the capitalization of that portion of the Eight Track Bridge crossing the Main Channel on Contract Section "O,"

which is owned and used by the above mentioned railroad company; and a voucher for \$18,238.15, the amount of said capitalization.

I wish to call your attention to the fact that two certificates of capitalization of bridges, for which vouchers were passed by the Board, do not appear in the proceedings and ask that they be made a part of the published records of your Honorable Body. The vouchers are as follows: The Chicago, Santa Fe and California Railway Company, Section "G" Bridge, for \$38,207.60, passed by the Board on April 12, 1899 (see page 5609 of Proceedings), and the Chicago Junction Railway Company, Section "O" Bridge (eight-track) for \$18,238.15, passed by the Board on September 25, 1901 (see page 7414 of Proceedings).

Respectfully submitted,

(signed) ISHAM RANDOLPH,  
Chief Engineer.

(One enclosure.)

The following is the joint certificate of the Chief Engineers covering capitalization of the Eight-track Bridge crossing the Main Channel on the line of Campbell Avenue, in the City of Chicago:

#### JOINT CERTIFICATE OF THE CHIEF ENGINEERS.

"Acting under the provisions of the second paragraph of the Fifth Clause of a certain agreement entered into between the Sanitary District of Chicago and the Receiver of the Chicago and Northern Pacific Railroad Company under date of November 14, 1895, and also in compliance with the supplemental agreement by and between the said parties entered into on the 1st day of June, 1897, we the undersigned Chief Engineers, respectively, of the Sanitary District of Chicago and of the Chicago Terminal Transfer Railroad Company, successor to the Chicago and Northern Pacific Railroad Company, do hereby certify that we have agreed upon the sum to be paid by the said District to the said railroad company 'the interest on which computed at the rate of five (5) per cent per annum shall be sufficient to defray the cost of maintenance of said fixed bridge, including all ordinary or special repairs of the same made necessary from any cause whatsoever;' and that the said sum is \$18,238.15, the same being twenty-five (25) per cent of the total amount to be paid by the said District for the maintenance and repairs designed to be provided under the

above recited paragraph of the Fifth Clause of the aforesaid contract.

The method of arriving at the sum herein determined is as follows:

- (A) Annual cost of painting. Total weight of superstructure, less weight in floor deck, 6,076,963 lbs.—13,793 lbs. = 6,063,160 lbs. at 3-100c....\$ 1,818 95
- (B) Annual cost of renewing timber in floor deck, 208,881 ft. B. M. at 5c. 1,044 40
- (C) Annual cost of inspecting and attending to track and joints, 3,602 1/4 lin. ft. at 20c..... 720 50
- (D) Annual cost of pointing and repairs to masonry, 850.4 sq. yds. at 7 1/2c..... 63 78

Total of the four items considered.\$ 3,647 63

\$3,647.63 capitalized at 5 per cent.....\$72,952 60

C. T. T. R. R. proportion at 35 per cent 18,238 15

(Certified) ISHAM RANDOLPH,  
Chief Engineer Sanitary District of Chicago.

F. E. PARADIS,  
Chief Engineer Chicago Terminal Transfer Railroad Company."

September 1, 1901.

The following are the joint certificates of the Chief Engineers covering the capitalization of the Chicago, Santa Fe and California Railway Company, Section "G" Bridge, for which a voucher in the sum of \$38,207.60 was passed by the Board, April 12, 1899, (page 5609 of the Proceedings); and the Chicago Junction Railway Company, Section "O," Eight Track Bridge, for which a voucher in the sum of \$18,238.15 was passed by the Board September 25, 1901 (page 7414 of the Proceedings) and referred to in Chief Engineer Randolph's report as not appearing of record in the proceedings of the Board on the respective dates:

#### JOINT CERTIFICATES OF THE CHIEF ENGINEERS— CHICAGO, SANTA FE AND CALIFORNIA RAIL- WAY COMPANY, SECTION "G," BRIDGE.

"Acting under the provisions of Section 18 of Article I. of the contract entered into on the 25th day of May, 1896, by and between the "Sanitary District of Chicago" and the "Atchison, Topeka and Santa Fe Railroad Company in Chicago," "The Chicago, Santa Fe and California Railway Company" and the "Atchison, Topeka and Santa Fe Railway Company." And also in compliance with the supplemental agreement entered into on the 12th day of October, 1898, by and between the parties hereinbefore named, we, the undersigned, the Chief Engineers respectively of the Sanitary



District of Chicago and of the above recited railroad corporations hereby certify that we have verified the weights, quantities and values of the materials falling under the provisions of Sections 17 and 18 of Article I. of the contract of May 25th, 1896, and have made the computations based thereon for the purpose of determining the sum to be paid the railway company by the Sanitary District for the ordinary maintenance and repairs of the bridge structure erected at the crossing known as LeMoynes (on Section G of the Sanitary District), and for the general depreciation and wearing out thereof, and for assuming all liability of accident to the same; figured on the basis of the use of said bridge as a fixed structure; and that we find the sum so to be paid to amount to thirty-three thousand two hundred and seven dollars and sixty cents as shown in detail upon the statement hereto attached.

(Signed) **ISHAM RANDOLPH,**  
*Chief Engineer Sanitary District of Chicago.*

(Signed) **JAMES DUN,**  
*Chief Engineer of the Kansas Company."*

April eighth (8) 1899.

The following is the capitalization account:

For amount to be paid to The Atchison, Topeka and Santa Fe Railway Company for the ordinary maintenance and repairs of bridge erected at crossing of Sanitary District Canal by the Chicago, Santa Fe and California Railway at Le Moynes, in Section "G" of Sanitary District, and for general depreciation and wearing out thereof and for assuming all liability of accident to the same.

All in accordance with Section 18 of Article 1 of contract with Sanitary District dated May 25th, 1896, Secretary's No. 10606.

Atchison, Topeka and Santa Fe Railway Company's Bridge at LeMoynes, Section "G"—

Double-track span, 368 ft.—3½ in. c. to c. of end pins.

Length on center line, 372 ft.—6½ in.

Weight of Metal in Superstructure—

	Pounds.
Structural steel.....	1,615,788
Cast steel.....	68,195
Cast iron.....	45,658
Total weight.....	1,724,636

Weight of Metal in Timber Deck—

472 bolts, ¾x14½ in., 1,250 lbs. (4c per bolt).....	\$ 18 88
472 cast washers, 472 lbs.....	7 08
472 cast clips, 1,416 lbs.....	21 24
Total (3,138 lbs).....	\$ 47 20

Total weight of metal in superstructure 1,724,636  
Total weight of metal in timber deck.. 3,138

Weight used for computing cost of painting..... 1,721,498  
(a) 1,721,498 lbs. at 3 1000.....\$ 516 45

Timber in deck cross ties .....41,856  
Timber in deck guard rail..... 5,838

47,189 ft. B. M. at \$18.50.....\$ 873 00  
Framing 748 ft. timber deck at 60c..... 445 80  
Cost of bolts, washers, etc..... 47 20

Total cost of deck.....\$ 1,366 00

47,300 ft. B. M. at \$5.00.....\$ 236 00  
748 ft. of track at 20c..... 148 60

Contract price of superstructure.....\$51,040 00  
Cost of inspecting, 862.32 tons at \$1.10.. 948 55

\$51,988 55  
Deduct cost of floor system..... 1,366 60  
\$50,622 55

1½ per cent on \$50,622.55 for annual depreciation in superstructure.....\$ 759 35

Summation of Items Involved in Settlement—

(a) Annual cost of painting.....\$ 516 45  
(b) Renewal of timber deck..... 236 00  
(c) Inspection and minor repairs ..... 148 60

\$ 901 05  
Annual depreciation..... 759 35  
\$ 1,660 38

Amount to be paid A. T. & S. F. R. R. by Sanitary District of Chicago, \$1,660.38  
×20.....\$33,207 60

#### JOINT CERTIFICATES OF THE CHIEF ENGINEERS— SECTION "O." EIGHT-TRACK BRIDGE.

"Acting under the provisions of the second paragraph of the Fifth Clause of a certain agreement entered into between the Sanitary District of Chicago and the Union Stock Yards and Transit Company under date of November 14, 1893, and also in compliance with the supplemental agreement by and between the said parties entered into on the 17th day of April, 1897, we, the undersigned Chief Engineers respectively of the Sanitary District of Chicago and of the Chicago Junction Railway Company, lessees of the Union Stock Yards and Transit Company, hereby certify that we have agreed upon the sum to be paid by the said District to the said railway Company, "the interest on which computed at the rate of five (5) per cent per annum shall be sufficient to defray the cost of maintenance of said fixed bridge, including all ordinary or special repairs of the same made necessary from any cause whatsoever;" and that the said sum is

\$18,238.15, the same being twenty-five (25) per cent of the total amount to be paid by the said District for the maintenance and repairs designed to be provided under the above recited paragraph of the Fifth Clause of the aforesaid contract.

The method of arriving at the sum herein determined is as follows:

(A) Annual cost of painting. Total weight of superstructure, less weight in floor deck, 8,076,933 lbs.—18,798—8,063,160 lbs., at 2-100c.....	\$ 1,818 95
(B) Annual cost of renewing timber in floor deck, 208,681 ft. B. M., at 5c.	1,044 40
(C) Annual cost of inspecting and attending to tracks and joints, 3,602½ lin. ft., at 20c .....	720 50
(D) Annual cost of painting and repairs to masonry, 850.4 sq. yds., at 7½c.....	63 78

Total of the four items considered. \$ 3,647 63  
 \$3,647.63 capitalized at 5 per cent..... 72,952 80  
 C. J. Ry. proportion, 25 per cent..... 18,238 15

(Certified) ISHAM RANDOLPH,  
*Chief Engineer Sanitary District of Chicago.*

J. B. Cox,

*Chief Engineer Chicago Junction Railway Company.*

#### REPORT IN REFERENCE TO CHANGE OF DESIGN FOR THE BRIDGE TO BE CONSTRUCTED CROSSING THE CHICAGO RIVER AT HARRISON STREET.

Mr. Carter, member of the Committee on Engineering, presented a report from the Committee, as follows:

CHICAGO, October 30, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Engineering begs leave to report to your Honorable Body, that they have had under consideration the question of the change of type of bridge to be constructed across the Chicago River at Harrison Street, and after mature deliberation your Committee has come to the conclusion that the style of bridge known as "the Hall design for a Bascule Bridge" is the most economical and suitable type of bridge to be constructed at that point, and will surmount the difficulties that have arisen since the date of the letting of the original contract for a bridge.

Your Committee, therefore, recommends that the District adopt what is known as

the Hall design for a Bascule Bridge, to be constructed across the South Branch of the Chicago River at Harrison Street, and that the Committee on Engineering be empowered to consider the two propositions for compensation submitted by the Hall people for the use of their type of bridge at this point, and decide which proposition shall be accepted, and that the Clerk and President of the District be empowered to sign and executed a contract as directed by the Engineering Committee.

Respectfully submitted,

(Signed) Z. R. CARTER,  
 WM. H. BAKER,  
 WM. LEGNER,  
 FRANK X. CLOIDT,  
 THOMAS J. WEBB,  
*Committee on Engineering.*

Mr. Wenter, member of the Committee on Engineering, presented the following minority report:

"I vote 'No' on the adoption of the Hall design for Harrison Street:

"First—They offered their bridge plans for a nominal sum, then they raised it to \$40,000.00; now, they insist on \$18,000.00, or on a percentage basis.

"Second—The bridge is entirely new and the design is experimental at best, being in the heart of the city where a great deal of travel is going on.

"Third—As the Hall people ask the same price, being \$18,000.00 on a cash basis, as for the Scherzer design, I cannot see any advantage for the Sanitary District as far as competition goes. It is a case of catching the coon a-going and a-coming.

"Fourth—I am opposed to empower the Engineering Committee on such an important question without the further approval of the Board."

Mr. Wenter moved the adoption of the minority report.

The roll being called on the adoption of the minority report, the motion was lost.

*Yeas*—Mr. Wenter—One.

*Nays*—Messrs. Baker, Braden, Carter, Cloidt, Legner, Smyth and Webb—Seven.

Mr. Cloidt, seconded by Mr. Legner,

thereupon moved that the majority report of the Committee on Engineering be adopted and the recommendations contained therein concurred in.

The roll being called the motion was adopted.

*Yeas*—Messrs. Baker, Carter, Cloldt, Legner and Webb—Five.

*Nays*—Messrs. Braden, Smyth, and Wenter—Three.

Mr. Braden requested to be recorded as follows in explanation of his vote against the adoption of the majority report of the Committee on Engineering:

"I vote 'No,' and want to explain my vote by saying that the reason for not voting for the adoption of the majority report is that I favor the Scherzer style of bridge."

Mr. Webb, in explanation of his vote for the adoption of the majority report of the Committee on Engineering, requested to be recorded as follows:

"Mr. Chairman—I wish to explain my vote, and why I favor the Hall type of bridge, as a substitution for the Scherzer style of bridge at Harrison Street. I voted for a Scherzer style of bridge at this point, and at that time I was not aware of the circumstances that would prevent this style of bridge from being erected. It has now transpired that a property holder at that point was empowered by a city ordinance to cross Harrison Street with a switch track to his property. After the contract for the bridge was let, this track was laid and this property holder applied for an order from the Circuit Court restraining the Sanitary District from encroaching upon his property, and our attorney advised us that this injunction cannot be dissolved, and the only alternative left for the Board is to adopt a style of bridge which will meet with the requirements and to my mind the Hall style of bridge meets those requirements.

"A representative of the Scherzer people appeared before this Board and submitted plans of an improved style of bridge, which they claim will answer the purpose and meet all the necessary requirements. They ask \$18,000 for their plans of this style of bridge. However, this would be more in the nature of an experiment, as it is a de-

parture from the original Scherzer bridge. A representative of the Hall people likewise appeared before this board and submitted two propositions for consideration. The first was a flat price of \$18,000 for the plans; the second proposition was to the effect that he would accept a percentage compensation, said compensation to consist of 18-30 of the saving incurred through the use of the Hall style of bridge instead of the Scherzer bridge, which the Sanitary District has contracted for at this point. The representative of the Hall people approximated that there would be a difference in the cost of construction of \$30,000, or, in other words, he guaranteed that in case the saving did not amount to the amount specified, he would be willing to accept a proportionate percentage of whatever the saving would amount to, or in case there would be nothing saved, they were to be in no way compensated for their plans.

I wish to go on record that I favor the percentage plan as a compensation rather than a flat price, and consider it to the best interests of the Sanitary District, as there is usually a great difference between the approximation and the reality, which difference in this case would be in favor of the District.

The principal ground why I favor the Hall style of bridge is that it has the unqualified endorsement of our Chief Engineer, who states that this bridge will work as well as any other pattern of bridge now in use; it is cheaper in construction and will result in a great saving for the Sanitary District, and it will finally result in competition in bridge matters before this Board, this in itself is no small item, as it will not tend to give a monopoly to one concern. The injunction suit makes it imperative to adopt some style of bridge that can be pushed forward to completion without a hindrance through court proceedings.

The minority point to the fact that on a former occasion the Hall people offered their plans free to the Board if the Board would adopt their style of bridge and this offer was rejected. The mere fact that at one time the Hall plans were offered free should not prejudice their case. If the invention is meritorious, there is no good reason why they should not come before the Board in the same position as other

firms who have plans to sell. Therefore, I vote, aye."

COMMUNICATION FROM CHIEF ENGINEER RANDOLPH, TRANSMITTING VOUCHER IN FAVOR OF THE PENNSYLVANIA STEEL COMPANY.

The Clerk presented the following communication from Chief Engineer Isham Randolph:

CHICAGO, October 30, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN — I transmit herewith voucher in favor of the Pennsylvania Steel Company for the sum of \$11,225.96; the bills in detail are attached. I have gone carefully through these bills, item by item, with Mr. Wm. M. Hughes, our former bridge engineer, and with Mr. Theo. Buskirk, who has been actively in charge of the work for this District, and as a result of their statements to me, I am satisfied that the bills as rendered are just and proper charges against this District. The bulk of these charges grow out of changes made from time to time in the plans for the substructure. I say this notwithstanding that an examination of the bills will disclose the fact that by far the largest part of the charges will relate to the cost of restoring the coffer dam after it had been twice cut into and sections removed to admit of the passage of vessels. The necessity for restoring the coffer dam grew out of changes of plan, the work which these changes called for not having been completed and it being impossible to complete it without the protection of the coffer dam.

Respectfully submitted,

ISHAM RANDOLPH,  
*Chief Engineer.*

Thirty (30) enclosures.

Mr. Smyth, seconded by Mr. Carter, moved that the communication and accompanying voucher be referred to the Committee on Engineering.

The motion prevailed unanimously and it was so ordered.

REQUEST FOR AN ADDITIONAL APPROPRIATION TO CARRY ON THE WORK OF ANALYZING THE WATERS OF THE ILLINOIS AND MISSISSIPPI RIVERS.

Mr. Baker presented a communication

from Dr. Arthur R. Reynolds, Director of Streams Examination, as follows:

October 17, 1901.

*Mr. Wm. H. Baker, Acting President Board of Trustees Sanitary District of Chicago:*

DEAR SIR—The work of the analyses of the waters of the Illinois and Mississippi Rivers, in conjunction with the analyses being made by St. Louis, is now well under way at the University of Illinois, and Professor Jordan of the University of Chicago has established three laboratories for bacterial investigations—one at St. Louis, one at Grafton and one at Peoria.

The following are the persons employed upon the work and the salaries they are to be paid:

At the University of Chicago:

E. O. Jordan.....	\$ 350 00
E. E. Irons.....	175 00
W. G. Sackett .....	125 00
W. S. Sayer.....	100 00
W. F. Schule.....	100 00
W. B. Wherry.....	40 00
W. M. Hartman.....	40 00
Miss Elsie P. Miller ..	25 00
Miss Mary Lincoln.....	25 00
E. J. Butske.....	20 00

At the University of Illinois:

A. W. Palmer.....	\$ 350 00
L. A. Dewey .....	75 00
E. Williams .....	60 00
T. J. Burrill.....	50 00
L. S. Roes.....	35 00
J. M. Latzer.....	35 00
R. W. Stark.....	25 00
A. D. Emmett.....	20 00

We are particularly fortunate to be able to get Professor Jordan and Professor Palmer to undertake the work, for at this time they are both very busy with their college work. However, they have entered heartily into the work and by utilizing graduates from their own institutions they are able to get experienced help much cheaper than St. Louis.

The equipment of these four laboratories has cost in the neighborhood of \$1,500.00, and the running expenses, exclusive of rent, water and gas will average about \$250.00 per month.

Your Board has placed in my hands the sum of \$300.00, to be used in the payment of small bills for the collection of water, small cash purchases and incidental expenses; in view of the fact that the laboratories are widely separated and the number of such bills therefore necessarily greater, I would suggest that the amount allowed be increased to \$500.00.

Yours respectfully,

ARTHUR R. REYNOLDS, M. D.,  
*Director Streams Examination.*

Mr. Legner, seconded by Mr. Carter, moved that the request contained in the communication be granted and the Clerk of the District directed to transmit the additional sum of \$200.00 to Dr. Reynolds; and that the communication be printed in the Proceedings.

The roll being called, the motion was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

In connection with the above communication, Mr. Carter moved, seconded by Mr. Cloidt, that the matter of receiving and tabulating the original reports of the analyses of the waters be referred to the Finance Committee.

The motion prevailed unanimously and it was so ordered.

#### ORDER FOR THE PAYMENT OF MATURING BONDS AND INTEREST.

Mr. Carter presented and, seconded by Mr. Cloidt, moved the adoption of the following order:

*Ordered*, That the Clerk be, and he is hereby, instructed to draw a warrant, payable to the order of the Treasurer of the District, for the sum of one hundred and thirty thousand (\$130,000) dollars, to pay the installment of one hundred thousand (\$100,000) dollars of the first issue of bonds of the Sanitary District of Chicago (being the ninth payment thereon), falling due November 1, 1901, and to pay the sum of thirty thousand (\$30,000) dollars semi-annual interest on balance of first issue of bonds of the Sanitary District of Chicago outstanding, being one million two hundred thousand (\$1,200,000) dollars at the rate of five (5) per centum per annum, and that the Treasurer be, and he is hereby, authorized and directed to pay said installment of bonds falling due as aforesaid, and the said semi-annual interest, upon proper presentation and cancellation of the bonds and coupons, respectively, evidencing the same; such payments to be charged to their proper respective accounts.

The roll being called, the order as presented was adopted.

*Yeas*—Messrs. Baker, Braden Carter,

Cloidt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

#### ORDER TO ENTER INTO BOND FOR THE PAYMENT OF COSTS, ETC., IN THE CASE OF JAMES SANFORD ET AL. VS. THE SANITARY DISTRICT OF CHICAGO.

Mr. Legner presented and, seconded by Mr. Cloidt, moved the adoption of the following order:

*Ordered*, That the President and Clerk of the District be authorized and directed to enter into a bond in the sum of two hundred fifty (\$250.00) dollars, in such form as may be approved by the Attorney of the District, for the payment of all costs, damages and expenses as shall be awarded against the Sanitary District in the case of James Sanford et al. vs. The Sanitary District of Chicago, now pending in the District Court of the United States for the Northern District of Illinois.

The roll being called, the order as presented was adopted.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

#### RESOLUTION IN REFERENCE TO BUILDINGS ADJOINING THE RANDOLPH STREET BRIDGE APPROACHES.

Mr. Carter presented the following resolution:

“WHEREAS, This District has contracted for and has entered upon the work of erecting a bridge of the rolling lift type across the Chicago River on the line of Randolph street; and

WHEREAS, The owner and the tenant of the buildings on the north side of Randolph street, abutting on the river, have called attention to the danger which threatens their said buildings, by reason of the construction of the foundations of the said rolling lift bridge in Randolph Street and the inadequacy of the foundation of said building; therefore, be it

*Resolved*, That the said owner and tenant be, and they are hereby, advised of the fact that the work of this District is being conducted, and will be conducted, with a reasonable regard to the safety of adjacent

property and the rights of abutting owners, but that this District does not, and will not, assume obligations to said property or owners which are not strictly legal liabilities, although it will as a matter of courtesy co-operate with said owner and tenant in affording protection to their property, and it therefore suggests that the said owner and tenant can materially lessen the danger to their said buildings by removing the stock which loads the southwest corner thereof, and we therefore advise that they do remove the same, leaving a space on each floor twenty-five feet on Randolph Street by twenty feet on the river front, the same being an area of 500 square feet on each floor."

Mr. Smyth, seconded by Mr. Braden, moved that the resolution be referred to the Judiciary Committee and Law Department, with instructions to report back to the Board.

Mr. Cloldt, seconded by Mr. Legner, moved as a substitute motion that the resolution be adopted and a copy thereof forwarded to the owner and tenant of the building mentioned in the resolution.

The roll being called, the substitute motion made by Mr. Cloldt was adopted by the following vote:

*Yeas*—Messrs. Baker, Carter, Cloldt, Legner, Webb and Wenter—Six.

*Nays*—Messrs. Braden and Smyth—Two.

COMMUNICATION TRANSMITTING PETITION OF THE ILLINOIS RIVER VALLEY ASSOCIATION FOR AN APPROPRIATION FOR A SURVEY AND ESTIMATE OF COST FOR THE CONSTRUCTION OF A DEEP WATERWAY, AND THE BILL AS PRESENTED TO THE HOUSE OF REPRESENTATIVES AND THE SENATE OF THE UNITED STATES.

Mr. Wenter, Chairman of the Committee on Federal Relations, presented, and the Clerk read, the following communication:

CHICAGO, October 30, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—During the month of December, 1900, the members of the Illinois River Valley Association, of which body the Chairman of the Committee on Federal Relations is a member, representing

this Board, appeared before the Committee on Rivers and Harbors of the National House of Representatives, in Washington, D. C., at a special session held in the evening. On said occasion a petition and bill were submitted to said Honorable Committee on Rivers and Harbors, and appropriate remarks were made in support thereof, for a deep waterway from Lockport, Illinois, to the City of St. Louis, Missouri.

Said Committee on Rivers and Harbors made a favorable report, and the bill was passed by the House; went to the Senate of the United States; was read twice and referred to the Committee on Commerce. Owing to a short session of Congress and the rhetorical ability of Senator Carter, of Montana, the River and Harbor Bill, with our bill, could not be reached for passage.

Annexed hereto is the petition and bill as printed in the River and Harbor Bill, dated January 17, 1901.

Respectfully submitted,

FRANK WENTER.

*Chairman Committee on Federal Relations.*

By unanimous consent, the above communication and accompanying petition and bill was ordered printed in the Proceedings of the Board.

The following is the petition as presented by a Committee of the Illinois River Valley Association to the Committee on Rivers and Harbors:

*To the Committee on Rivers and Harbors, Hon. Theodore E. Burton, Chairman:*

We, the undersigned Committee, representing the Illinois River Valley Association by appointment, respectfully represent that inasmuch as a channel covering a distance of thirty-four miles from the mouth of the Chicago River to Lockport on the Desplaines River has been constructed with sufficient depth and capacity to meet the requirements of deep water navigation for crafts drawing over fourteen feet of water.

And, inasmuch as the Chicago Drainage District of Chicago, Illinois, have expended in the construction of this great work approximately the sum of thirty-four million dollars, and inasmuch as it is provided by the act of the General Assembly of the State of Illinois authorizing the construction of said navigable channel that "when such channel shall be completed, and the water turned therein, to

"the amount of three hundred thousand cubic feet of water per minute, the same is hereby declared a navigable stream, and whenever the general government shall improve the Desplaines and Illinois Rivers for navigation to connect with this channel, said general government shall have full control over the same for navigation purposes, but not to interfere with its control for sanitary or drainage purposes," and inasmuch as in the construction of this navigable channel, Chicago has expended fully ten millions of dollars more than she would have been required to expend were it not for the deep water navigable feature of the channel; and inasmuch as it is further provided by the act of the General Assembly, that if at any time the general government shall improve the Desplaines and Illinois Rivers, so that the same shall be capable of receiving a flow of six hundred thousand cubic feet of water per minute more from said channel, and shall provide for the payment of such damages as may be caused by the extra flow above three hundred thousand cubic feet of water per minute, then such sanitary district shall within one year thereafter enlarge the entire channel leading into said Desplains or Illinois Rivers from said district to a sufficient size and capacity to produce and maintain a continuous flow throughout the same of not less than six hundred thousand cubic feet of water per minute, with a current of not more than three miles per hour; and such channel shall be constructed upon such grade as to be capable of producing a depth of water not less than eighteen feet throughout said channel.

And inasmuch as in the building of said channel, under the act of the General Assembly above referred to, the Chicago Drainage Trustees have constructed the same with a minimum width of one hundred and sixty feet on the bottom, and a depth of not less than twenty-two feet of water in the channel, and have spanned the same with the most approved modern type of movable bridges, thereby making the navigable feature of said channel complete in all its details, and in the further view of the fact that the rapidly growing commercial interests of the Middle West imperatively demand enlarged and more favorable facilities for transportation of its products, and that deep water communication between the lakes and the Gulf of Mexico is believed to be feasible and practicable.

Your petitioners would most respectfully ask that in your appropriations for river and harbor purposes you provide the sum of two hundred thousand dollars, or as much as may be needed for the purpose, to be used under the direction of the Secretary of War for a complete survey and estimate of cost of the construction of a deep waterway of fourteen

feet or more connecting the Chicago Sanitary Ship Canal with the Desplaines and Illinois Rivers, and thence to the mouth of the Illinois River.

And we further ask that in conjunction with said survey and estimate, the Mississippi River Commission may be requested to prepare plans and estimates of cost of construction for a fourteen foot waterway from the mouth of the Illinois River to the City of St. Louis, to be submitted to the Secretary of War in conjunction with the survey and estimate herewith petitioned for the Desplaines and Illinois Rivers; and we further petition that said Commission be instructed to determine as soon as may be practicable the feasibility of extending said fourteen foot waterway from the City of St. Louis to the Gulf of Mexico.

Respectfully submitted,

ISAAC TAYLOR, Peoria, Ill.,

FRANK WENTER, Chicago, Ill.,

HENRY MAYO, Ottawa, Ill.,

LYMAN E. COOLEY, Chicago, Ill.,

CHRIS. SHARP, St. Louis, Mo.,

H. R. WHITMORE, St. Louis, Mo.,

*Committee.*

December 11, 1900.

The following is the bill as presented to the House of Representatives and Senate, in Washington, D. C.:

"The sum of two hundred thousand dollars, or so much thereof as may be necessary, is hereby appropriated for making such surveys, examinations, and investigations as may be required to determine the feasibility of, and to prepare and report plans and estimates of cost of, a navigable waterway fourteen feet in depth, from Lockport, Illinois, by way of the Desplaines and Illinois Rivers, to the mouth of said Illinois River, and from the mouth of the Illinois River by way of the Mississippi River to Saint Louis, Missouri.

"Provided, That twenty-five thousand dollars of said sum, or so much thereof as may be necessary, may be expended by the Mississippi River Commission in making the surveys, examinations, and investigations herein required from the mouth of the Illinois River to Saint Louis; and

"Provided, further, That the Secretary of War shall appoint a board of three engineers to make the surveys, examinations, and investigations hereinbefore required from Lockport, Illinois, through the Desplains River and the Illinois River to the mouth of said Illinois River, and that all such surveys, examinations,

and investigations shall be made to determine the feasibility of, and to prepare and report plans and estimates of cost of, a navigable waterway, fourteen feet in depth, from Lockport, Illinois, to Saint Louis, Missouri, the said Mississippi River Commission shall make said report covering such proposed improvement from the mouth of the Illinois River to Saint Louis, and the said Board of Engineers shall

make such report from Lockport, Illinois, to the mouth of the Illinois River."

ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Legner, the Board adjourned.

*A. R. Porter.*  
CLERK



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

NOVEMBER 6, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Forty-fourth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago, was held in the rooms of the Board, Security Building, Wednesday, November 6, 1901, at 2 o'clock, P. M.

In the absence of the President, the

Vice-President, Mr. Baker, took the chair, and the roll being called there were then

*Present*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter.  
—Eight members.

The Board was then called to order.

**MINUTES.**

On motion of Mr. Wenter, seconded by Mr. Carter, the minutes of the regular meeting held October 30, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

Lydon & Drews Company (Canal Street Bridge, November 1, 1901).....	\$ 4,222 31
Lydon & Drews Company (Main Street Bridge, November 1, 1901).....	3,595 50
Lydon & Drews Company (Chicago River Improvement, Nov. 1, 1901) ..	26,920 17
Page & Shnoble (Ashland Avenue Bridge, November 1, 1901) .....	1,776 93
A. R. Porter, Clerk (water power development, Controlling Works)....	467 40
	\$ 37,282 31

## LAW DEPARTMENT.

Samuel W. Norton (witness fees, Ray vs. District) .....	\$ 20 00	
John S. White (witness fees, Ray vs. District) .....	15 00	
E. G. Young (witness fees, Ray vs. District) .....	15 00	
George Sperry (witness fees, Ray vs. District) .....	20 00	
E. S. Bronson (witness fees, Ray vs. District) .....	5 00	
James R. Hobbs (witness fees, Ray vs. District) .....	1 99	
A. A. Godfrey (witness fees, Ray vs. District) .....	5 00	
Geo. P. Adams (witness fees, Ray vs. District) .....	25 00	
Frank Sprague (witness fees, Ray vs. District) .....	30 00	
William Erb (witness fees, Ray vs. District) .....	5 00	
John Schanbacher (witness fees, Ray vs. District) .....	10 00	
A. C. Schrader (witness fees, Ray vs. District) .....	15 00	
Reuben W. Kilmer (witness fees, Ray vs. District) .....	15 00	
A. B. Graves (witness fees, Ray vs. District) .....	20 00	
D. K. Gise (witness fees, Ray vs. District) .....	15 00	
Albert Hassert (witness fees, Ray vs. District) .....	10 00	
W. F. Stafford (witness fees, Ray vs. District) .....	5 00	
Samuel Hassert (witness fees, Ray vs. District) .....	10 00	
John Mahoney (witness fees, Ray vs. District) .....	10 00	
Peter Heinz (witness fees, Ray vs. District) .....	5 00	
William Found (witness fees, Ray vs. District) .....	25 00	
Chas. J. Young (witness fees, Ray vs. District) .....	25 00	
William Kramer (witness fees, Ray vs. District) .....	51 10	
Yack & Co. (hotel expenses, Ray vs. District) .....	7 05	
Hotel Munroe (hotel expenses, Ray vs. District) .....	3 10	
Clark Bros. (livery, Ray vs. District) .....	2 50	
E. C. Shaw (court reporting, Ray vs. District) .....	71 45	
John W. Nadelhoffer (expense) .....	64 05	
Edward R. Nadelhoffer (expense) .....	88 35	
John T. Evans (special service, Harlev vs. District) .....	182 30	
D. W. Sullivan (special service, Harlev vs. District) .....	198 00	
Al. F. Gorman (special service, Harlev vs. District) .....	73 00	
John Nellegan (special service, Harlev vs. District) .....	130 90	
N. E. Murray (special service Harlev vs. District) .....	100 00	
George F. Barrett (special service, Harlev vs. District) .....	221 15	
F. H. Novak (special service, Harlev vs. District) .....	137 50	
John Lehman (witness fees, Harlev vs. District) ..	57 70	
E. S. Woods (witness fees, Harlev vs. District) .....	50 00	
Stephen D. Griffin (expense, Harlev vs. District) .....	41 60	
John Barton Payne (special counsel, Harlev vs. District) .....	3,000 00	
Stephen A. Douglas (special counsel, Harlev vs. District) .....	1,012 50	
Lyman E. Cooley (professional services, Harlev vs. District) .....	250 00	
The Mooney & Boland Agency (professional services, Harlev vs. District) ..	14 00	
Frank A. Tyrell (professional services, Harlev vs. District) .....	157 55	
	<hr/>	\$ 6,220 79

## GENERAL ACCOUNT.

Security Building Receivership (rent of offices, November, 1901) .....	\$ 478 33	
John F. Higgins (printing proceedings, September, 1901) .....	43 10	
	<hr/>	521 43
Grand total .....	<hr/>	\$ 44,034 53

Mr. Carter, seconded by Mr. Smyth, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Legner, Smyth and Wenter (*except as to Law Department vouchers for special services in the case of Harlev vs. the Sanitary District of Chicago in favor of John T. Evans, \$182.30; D. W. Sullivan, \$198.00; Al. F. Gorman, \$73.00; John Nellegan, \$130.90; N. E. Murray, \$100.00; Geo. F. Barrett, \$221.15 and F. H. Novak, \$137.50, on which Mr. Wenter was excused from voting*—Six.

*Nays*—None (*except as above stated*).

REPORT IN REFERENCE TO SETTLEMENT  
OF CLAIMS OF EDWARD DOUD AND  
MARY MURPHY.

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee as follows:

CHICAGO, November 5, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance reports to your Honorable Body that on the 7th day of September, 1892, the Sanitary District of Chicago commenced condemnation proceedings in the Circuit Court of Cook County against certain property belonging to Edward Doud, Patrick Doud and Sarah Murphy, which property is located in Cook County, and more particularly described as follows:

That part of Lot six (6) of a subdivision of the southeast fractional quarter of Section eleven (11), Township thirty-eight (38) North, Range twelve, east of the Third Principal Meridian, as per plat recorded in the Recorder's office in Cook County, Illinois, in Book 178 of Maps, page 27, bounded and described as follows:

Beginning at the intersection of a line drawn from the northeast corner of said southeast fractional quarter to a point in the south line of said southeast fractional quarter, nine hundred feet east of the southwest corner of said southeast fractional quarter with the north line of said Lot six (6) and running thence southwesterly on said first named line, seven hundred and fifty-two and seventy one hun-

dredths feet (752.70), then east on a line parallel with the south line of the said southeast fractional quarter to the westerly margin of the Desplaines River; thence easterly at right angles with the general course of said river there to the center thread of the current point of contact of said Lot six (6) with the westerly margin of the Desplaines River, and at right angles with the general course of said river there; thence westerly on said line to said westerly margin; thence west on said north line to the point of beginning.

That part of Lot six (6) of a subdivision of the southeast fractional quarter of Section eleven (11), Township thirty-eight (38) North, Range twelve (12) east of the Third Principal Meridian, as per plat recorded in the Recorder's office in Cook County, Illinois, in Book 178 of Maps, page 27, bounded and described as follows:

Beginning at the intersection of a line drawn from the northeast corner of said southeast fractional quarter to a point in the south line of said southeast fractional quarter, 900 feet east of the southwest corner of said southeast fractional quarter with the south line of said southeast fractional quarter and running thence northeasterly along said first named line 757.80 feet; thence east on a line parallel with the south line of said southeast fractional quarter to the westerly margin of the Desplaines River; thence easterly at right angles with the general course of said river there to the center thread of the current of said river; thence southwesterly down said center thread to its intersection with a line drawn southeasterly from the point of contact of the northwesterly margin of the Desplaines River with the south line of said southeast fractional quarter and at right angles with the general course of said river there; thence northwesterly along said line to said northwest margin; thence west along said south line to the point of beginning.

The Committee further reports that on the 14th day of April, 1893, a decree was entered in said case fixing the compensation to be paid to Patrick Doud at the sum of \$5,500.00, and Edward Doud and Sarah Murphy the sum of \$5,500.00, which amounts were awarded also in full for damages to land not taken, and that on

condition that the Sanitary District of Chicago construct and build a levee on the north side of the new river channel, to be constructed in Sections D, E, and F, as set forth in the contracts let by the Sanitary District of Chicago for the construction of the proposed work on said Sections D, E, and F, and that it also construct and continuously maintain from the time when its Main Channel shall have been completed such an outlet or drain from the ditch provided for on the outside of said levee as will carry all the water from said ditch into said Main Channel; that on the same date deeds passed from said Patrick Doud and Edward Doud and Sarah Murphy, conveying said above described property to the said Sanitary District of Chicago, in which the District, as part of the consideration of said deeds, bound itself to construct and maintain said levee as provided for in said decree.

The Committee further reports that the construction and maintenance of said levee was deemed, on account of the expense involved, inexpedient by the Board of Trustees, and consequently nothing has been done in the premises.

The Committee has received a proposition from said Edward Doud and Sarah Murphy, to release the District from all damages and obligations arising under said contract to construct and maintain, said levee, under the terms of said deed and decree, upon the payment to them of the sum of \$5,000.00, and since the construction and continuous maintenance of said levee, as required by said deed and decree, would be far in excess of the amount the said Edward Doud and Sarah Murphy offer to accept, and for which they offer to release the District from constructing and maintaining said levee, the Committee is of the opinion that the proposition made by them be accepted.

The Committee further advises that since the execution of said agreement, that Patrick Doud died, leaving as his only heirs-at-law the said Edward Doud and Sarah Murphy.

The Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to pay to the said Edward Doud and Sarah Murphy, individually, and as heirs-at-law of Patrick Doud, deceased, or their attorney or legal

representative, the sum of \$5 000.00, when the said Edward Doud and Sarah Murphy, or their attorney, shall have executed and delivered a release discharging the District from any and all obligations arising out of the provisions of said decree and deed.

Respectfully submitted,

(Signed)

Z. R. CARTER,

*Chairman.*

THOMAS J. WEBB,

THOMAS A. SMYTH,

FRANK X. CLOIDT,

FRANK WENTER,

*Committee on Finance.*

On motion of Mr. Carter, seconded by Mr. Wenter, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Carter, Cloidt, L'gner, Smyth and Wenter—Six.

*Nays*—Mr. Braden—One.

REPORT IN REFERENCE TO PURCHASE OF CERTAIN PROPERTY ADJACENT TO THE CHICAGO RIVER FROM EUGENE H. PEARSON, HUGH M. SCOTT AND GRANGER FARWELL, TRUSTEES.

Mr. Carter, Chairman of the Finance Committee, presented a report from the Committee, as follows:

CHICAGO, November 5, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance reports that it has reached an agreement with Eugene H. Pearson, Hugh M. Scott and Granger Farwell, as trustees under the will of James H. Pearson, deceased, for the purchase of certain property located adjacent to the Chicago River, the requirement of which is made necessary in the widening, deepening and improving of said river.

Said property is described as follows:

That part of Lot two (2), Block thirty-five (35), in Canal Trustees' Subdivision of the west half (W.  $\frac{1}{2}$ ) of Section twenty-one (21), Township thirty-nine (39) North, Range fourteen (14) East of the Third Principal Meridian, and so much of the southeast quarter (S. E.  $\frac{1}{4}$ ) as lies west of the South Branch of the Chicago River,

lying southeasterly of a line described as follows:

Beginning at a point in the dividing line between Lots four (4) and five (5) in said Block thirty-five (35), one hundred sixty-nine and thirty-eight one-hundredths (169.38) feet distant from the northwest corner of said Lot four (4), measured along said dividing line, running thence northeasterly to a point on the west line of Lot five (5), Block fourteen (14), in said Canal Trustees' Subdivision, one hundred fifty-six and seventy-six one-hundredths (156.76) feet distant from the northwest corner of said Lot five (5), measured along said west line of said Lot five (5), containing nine thousand one hundred seventy-nine and seven-tenths (9,179.7) square feet, more or less, situated in the County of Cook and State of Illinois.

Your Committee has agreed on behalf of the District to pay for said property the sum of ninety-one hundred and seventy-nine and seventy one-hundredths (\$9,179.70) dollars, and the further sum of one hundred and twenty-five dollars (\$125.00), in full payment of the taxes for the year 1901 on the above described property. The said taxes to be paid by the said Pearson, Scott and Farwell. Also the Sanitary District to build a dock along the remaining portion of said property.

The Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to pay, on the voucher of the Attorney, to the said Eugene H. Pearson, Hugh M. Scott and Granger Farwell, as trustees under the will of James H. Pearson, deceased, the sum of ninety-three hundred and four and seventy one-hundredths (\$9,304.70) dollars, when they shall have executed and delivered to said Sanitary District of Chicago a good and sufficient warranty deed, conveying to said District the above described property free and clear from all encumbrances.

Respectfully submitted,

(Signed) Z. R. CARTER,  
Chairman.  
J. C. BRADEN,  
THOMAS A. SMYTH,  
THOMAS J. WEBB,  
FRANK WENTER,  
Committee on Finance.

On motion of Mr. Carter, seconded by Mr. Wenter, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

PAYMENT OF INDEMNITY TO THE PITTSBURGH, CINCINNATI, CHICAGO & ST. LOUIS RAILWAY COMPANY FOR MAINTENANCE AND REPAIRS OF THE EIGHT TRACK BRIDGE.

Mr. Carter, Chairman of the Finance Committee, presented a report from the committee, as follows:

CHICAGO, Nov. 6, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance herewith transmits to your Honorable Body a letter from the Chief Engineer, Isham Randolph, together with original certificate of Chief Engineer of the District and the Chief Engineer of the Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company, fixing the sum to be paid by the District to said railway company, as capitalization of the Eight-track Bridge, crossing the Main Channel on the line of Campbell Avenue, in the City of Chicago, said agreement by the engineers, respectively, in regard to said capitalization, being in pursuance of the second paragraph of the fifth clause of the agreement entered into between the District and said railway company under date of August 31, 1895, and also in compliance with supplemental agreement, dated April 20, 1897. The amount of compensation to be paid said railway company is fixed by said engineers, respectively, at thirty-six thousand four hundred seventy-six and thirty one-hundredths (\$36,476.80) dollars.

Your Committee, therefore, recommends that the President and Clerk be authorized and directed to pay the voucher of the Chief Engineer, hereto attached, for thirty-six thousand four hundred seventy-six and thirty one-hundredths (\$36,476.80) dollars, in favor of said Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company, for the capitalization and maintenance of

said bridge, upon their giving a proper receipt and release therefor.

Respectfully submitted,

(Signed) Z. R. CARTER,

*Chairman.*

WM. H. BAKER,  
JOS. C. BRADEN,  
THOMAS J. WEBB,  
WM. LEGNER,  
FRANK X. CLOIDT,  
FRANK WENTER,  
THOMAS A. SMYTH.

*Committee on Finance.*

On motion of Mr. Carter, seconded by Mr. Cloidt, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

The following is the communication from Chief Engineer Randolph, transmitting the joint certificate of the chief engineers:

CHICAGO, Nov. 2, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I transmit herewith the joint certificate of the Chief Engineer of the Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company and the Chief Engineer of this District, covering the capitalization of that portion of the Eight-track Bridge crossing the Main Channel on Contract Section "O," which is owned and used by the above mentioned railroad company; and a voucher for \$36,476.30, the amount of said capitalization.

Respectfully submitted,

ISHAM RANDOLPH,

*Chief Engineer.*

JOINT CERTIFICATE OF THE CHIEF ENGINEERS  
COVERING CAPITALIZATION OF THE EIGHT-  
TRACK BRIDGE CROSSING THE MAIN CHAN-  
NEL ON THE LINE OF CAMPBELL AVENUE  
IN THE CITY OF CHICAGO.

"Acting under the provisions of the second paragraph of the fifth clause of a certain

agreement entered into between the Sanitary District of Chicago and the Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company, under date of August 31, 1893, and also in compliance with the supplemental agreement by and between the parties entered into on the 20th day of April, 1897, we, the undersigned Chief Engineers, respectively, of the Sanitary District of Chicago and of the above recited railway company, hereby certify that we have agreed upon the sum to be paid by the said District to the said railway company, the interest on which—computed at the rate of five (5) per cent per annum—shall be sufficient to defray the cost of maintenance of said fixed bridge, including all ordinary or special repairs of same made necessary from any cause whatsoever; and that the said sum is \$36,476.30, the same being fifty (50) per cent of the total amount to be paid by the said District for the maintenance and repairs designed to be provided under the above recited paragraph of the fifth clause of the aforesaid contract.

The method of arriving at the sum herein determined is as follows:

(a) Annual cost of painting—Total weight of superstructure less weight in floor deck, 6,076,953 pounds—13.723=8,063,160 pounds, at 3-100c.....	\$ 1,818 96
(b) Annual cost of renewing timber in floor deck, 208,881 feet B. M., at 5c	1,044 40
(c) Annual cost of inspecting and attending to tracks and joints, 3,602½ lineal feet, at 20c.....	720 50
(d) Annual cost of painting and repairs to masonry, 550.4 square yards, at 7½c .....	63 78

Total of the four items considered. \$ 3,647 63

\$3,647.63, capitalized at 5 per cent.....\$72,952 00  
P., C. & St. L. Ry., proportion 50 per cent.....\$36,476 30

(Certified:) ISHAM RANDOLPH,  
*Chief Engineer Sanitary District of Chicago.*

THOS. RODD,  
*Chief Engineer P., C. & St. L. Ry."*

REPORT TRANSMITTING FORM OF LEASE  
FOR DOCKAGE LANDS TO THE ATLAS  
STONE COMPANY.

Mr. Carter, Chairman of the Finance Committee, presented a report from the Committee, as follows:

CHICAGO, October 29, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Fi-

nance, to whom was referred the communication of the Atlas Stone Company, containing a proposition for a lease of dockage lands belonging to the District, herewith presents a form of lease to be executed by the District with the above mentioned party.

Said lease is for the term of one year, at an annual rental of two (\$2.00) dollars per lineal foot of water front, and is in conformity with the form ordered by the Board of Trustees for use in cases as above.

Your Committee, therefore, recommends that the President and Clerk be authorized and directed to execute said lease on behalf of the District to the party as above set forth, the said party having executed the same and complied with the terms and conditions thereof.

Respectfully submitted,

(Signed) Z. R. CARTER,  
*Chairman.*  
J. C. BRADEN,  
FRANK X. CLOIDT,  
THOMAS A. SMYTH,  
THOMAS J. WEBB,  
FRANK WENTER,  
*Committee on Finance.*

(Three enclosures.)

On motion of Mr. Carter, seconded by Mr. Wenter, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

The following is the form of lease with the Atlas Stone Company:

**THIS INDENTURE**, Made this first day of November between the Sanitary District of Chicago, party of the first part, and the Atlas Stone Company, a corporation, organized and existing under the laws of the State of Illinois, party of the second part.

**WITNESSETH**, That said party of the first part, for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, its successors and assigns, has demised and leased to the said party of the second part all those premises situate, lying

and being in the County of Cook and State of Illinois, known and described as follows, to-wit:

A strip of land situated in the northwest quarter (N. W.  $\frac{1}{4}$ ) of Section twenty-one (21), Township thirty-seven (37) North, Range eleven (11) east of the Third Principal Meridian, described as follows:

Beginning at a point in the north line of said Section 21, thirty-two and fifty-six one-hundredths (32.56) feet east of the northwest corner of said Section twenty-one (21), running thence south five (5) degrees and thirty-five (35) minutes east to the northerly bank of the Main Drainage Channel; running thence southwesterly along said northerly bank for a distance of one hundred (100) feet; running thence north five (5) degrees, thirty-five (35) minutes west for a distance of one hundred (100) feet; running thence northeasterly parallel with the northerly bank of the Main Drainage Channel for a distance of seventy-three and ninety-five one-hundredths (73.95) feet; running thence north five (5) degrees and thirty-five (35) minutes west to a point in the north line of said Section 21, seven and forty-four one-hundredths (7.44) feet east of the northwest corner of said Section 21; running thence east for a distance of twenty-five and twelve one-hundredths (25.12) feet to the point of beginning. To be used for the purpose of shipping stone.

To have and to hold the above described premises unto the party of the second part, its successors and assigns, from the first (1st) day of November, in the year of our Lord one thousand nine hundred and one (1901), for and during and until the thirty-first (31st) day of October, in the year of our Lord one thousand nine hundred and two (1902).

And the said party of the second part, in consideration of the leasing of the premises aforesaid by the said party of the first part to the said party of the second part, does covenant and agree with the said party of the first part, its successors and assigns, to pay to the said party of the first part, as rent for said demised premises, at the office of said first party, in the said City of Chicago, the sum of two (\$2.00) dollars per lineal or running foot of water front per annum, payable in equal monthly installments in advance.

It is expressly covenanted and agreed by the said party of the second part, its successors and assigns, that it will use said above described premises for docking and shipping purposes only, and that it will not use said premises or suffer them to be used for the sale of wines, ales, liquors or any other intoxicating beverages whatever, or for the purpose of gambling in any manner whatsoever.

It is further expressly covenanted and

agreed, however, by and between the parties aforesaid, that the said party of the first part, its successors or assigns, reserves to itself the right to, at any time, at its election, to declare said lease terminated and, either with or without process of law, and using such force as may be necessary in so doing, to re-enter said demised premises and again re-possess and enjoy said premises as in their first and former state. Said party of the first part hereby covenants and agrees, that in case it does terminate this lease as above provided, and for no cause given by said party of the second part, to pay to said party of the second part such sum of money as shall be appraised as damages caused by such termination of this lease, said damages to be appraised by a board of three (3) arbitrators, one to be appointed by the party of the first part, and one by the party of the second part, and said two so appointed to choose a third one, the award of said Board of Arbitrators to be final and binding upon both parties to this lease.

It is further covenanted and agreed by said party of the second part that it will pay, or cause to be paid, all water rates and all taxes and assessments that may be laid, charged or assessed upon said premises, pending the existence of this lease, or if at any time after said tax, assessment or water rate shall have become due or payable, the party of the second part, or its legal representatives, shall neglect to pay such water tax, rates or assessment, it shall be lawful for said party of the second part to pay the same at any time thereafter, and the amount of any and all such payments so made by the party of the first part shall be deemed and taken and are hereby declared to be so much additional and further rent for the above demised premises due from and payable by the party of the second part; and may be collected in the same manner by distress or otherwise, as is hereinafter provided for the collection of other rents to grow due thereon.

And it is expressly understood and agreed by the party of the second part hereto, or its successors and assigns that the whole amount of rent reserved and agreed to be paid for said above described premises, and each and every installment thereof, shall be and is hereby declared to be a valid and first lien upon any and all buildings and improvements on said premises, or that may at any time be erected, placed or put on said premises by said party of the second part, its successors or assigns, and upon its or their interests in this lease and the premises hereby demised; and that whenever and as often as any installment of rent or any other amount above declared to be deemed and taken as rent shall become due and remain due and unpaid for one day after the same becomes due and

payable, said party of the first part, its successors, agents, attorneys, or assigns, may sell at public auction, to the highest bidder for cash, after having first given ten days' notice of the time and place of such sale, in some newspaper published in Cook County, all the buildings and improvements on said premises, and all the right, title and interest acquired by said party of the second part under the lease to the premises herein described, and as the attorney of the said party of the second part—hereby irrevocably constituted—may make to the purchaser or purchasers thereof a suitable and proper transfer, bill of sale, or deed of the same, and out of the proceeds arising from the said sale, after first paying all costs and expenses of said sale, including commissions and attorneys' fees, retain to itself the whole amount due on said lease up to the date of said sale, rendering the surplus, if any, to said party of the second part, its successors, attorneys or agents, which sale shall be a perpetual bar to and against all rights and equities of said party of the second part, its successors and assigns, in and to the property aforesaid.

And the party of the second part further covenants with the party of the first part that it will keep said demised premises in a clean and wholesome condition, in accordance with the ordinances and regulations of the County of Cook, and the direction of the health officers thereof, and that at the expiration of the time in this lease mentioned it will yield up said premises to the party of the first part in as good condition as when the same were entered upon by the said party of the second part, loss by fire or inevitable accident and ordinary wear excepted.

And it is further agreed by the party of the second part that neither it nor its legal representatives will underlet said premises, or any part thereof, or assign this lease, without the written assent of said party of the first part first had and obtained thereto; nor use or suffer them to be used for any other purpose than that above mentioned.

It is expressly understood and agreed by and between the parties aforesaid, that if the rent above reserved, or any part thereof, shall be behind or unpaid on the day of payment whereon it ought to be paid, as aforesaid, or if any default shall be made in any of the covenants herein contained to be kept by the party of the second part, its successors or assigns, it shall or may be lawful for the party of the first part, or its successors, agents, attorneys or assigns, at its election, to declare said term ended, and into the said demised premises, or any part thereof, either with or without process of law, to re-enter, and the party of the second part, or any other person or persons, occupying, in or upon the



same, to expel, remove and put out, using such force as may be necessary in so doing, and the said premises again to repossess and enjoy as in their first and former state, and to distrain for any rent that may be due thereon upon any property belonging to the party of the second part, whether the same be exempt from execution and distress by law or not; and the party of the second part in that case hereby waives all legal rights which it now has, or may have, to hold or retain any such property under any exemption laws now in force in this state, or in any other way, meaning and intending hereby to give the party of the first part, its successors, officers, agents, attorneys or assigns, a valid and first lien upon any and all goods, chattels, and other property belonging to the party of the second part as security for the payment of said rent. In manner aforesaid, anything hereinbefore contained to the contrary notwithstanding. And if at any time said terms shall be ended at such election of said party of the first part, its successors, officers, agents, attorneys and assigns, as aforesaid, or in any other way, the party of the second part does hereby covenant and agree to surrender and deliver up said above described premises and property peaceably to the said party of the first part, its successors, officers, agents, attorneys or assigns, immediately upon the termination of said term as aforesaid; and if it shall remain in possession of the same one day after notice of such default, or after the termination of this lease, in any of the ways above named, it shall be deemed guilty of a forcible detainer of the premises under the statute, and shall be subject to all the conditions and provisions above named, and to eviction and removal, forcibly or otherwise, with or without process of law, as above stated.

And the party of the second part also hereby agrees that in case any additional taxes are levied or assessed upon said property by reason of the construction of any improvements or appurtenances thereon by said second party, that said second party shall pay or caused to be paid all of said taxes which may be so levied or assessed.

And it is further agreed and understood by the said party of the second part that neither the right given in this lease to said party of the first part to collect the rent that may be due under the terms of this lease, by sale or any proceedings under the same shall in any way affect the right of said party of the first part to declare this lease void and the term hereby created ended, as above provided, upon default made by said party of the second part.

And the said party of the second part hereby waives its right to any notice from said

party of the first part of its election to declare this lease at an end, under any of the provisions, or any demand for the payment of rent, or the possession of the premises leased herein; but the simple fact of the non-payment of the rent reserved shall constitute a forcible detainer as aforesaid.

It is further understood and agreed that this lease shall be subject to the easement of the Sanitary District of Chicago for all purposes within its corporate powers not destructive or unnecessarily injurious to the rights or privileges of the party of the second part.

The said party of the second part further agrees not to remove any building or improvements from said premises without the written assent of the said party of the first part, and that the said second party shall pay and discharge all costs and attorneys' fees and expenses that shall arise from enforcing the covenants of this indenture by the party of the first part.

It is further understood and agreed that all the conditions and covenants contained in this lease shall be binding upon the successors and assigns of the parties to these presents, respectively.

It is further agreed by and between the parties aforesaid that the said party of the second part be, and he is hereby given permission to construct a bridge across the River Diversion on the right of way of said first party; said bridge to be constructed under the direction and supervision of the Chief Engineer of the Sanitary District of Chicago; that at the expiration of this lease, or at the expiration of the period when the relation of said lessor and lessee ceases to exist between the Sanitary District of Chicago and the said Atlas Stone Company, or at any time, in the opinion of the Board of Trustees, it becomes desirable to remove said bridge from crossing the said River Diversion, that the said Atlas Stone Company proceed upon sixty (60) days' notice to remove said bridge, to at once remove the same.

Said party of the second part shall save the Sanitary District of Chicago harmless from any and all damages to person or property growing out of the construction or use of said bridge.

It is hereby expressly agreed that the said party of the second part shall have preference to renew the lease for said land for the period of one (1) year after the expiration of this lease, if the parties hereto shall agree upon the terms and conditions thereof.

In witness whereof, the said parties have

hereunto set their hands and seals the day and year first above written.

SANITARY DISTRICT OF CHICAGO.

[SEAL] By WM. H. BAKER,  
Vice President.

Attest:  
A. R. PORTER,  
Clerk.

[SEAL] ATLAS STONE CO.,  
By ROBT. O. LAW,  
President.

Attest:  
JOHN BEAUBIEN,  
Secretary.

REPORT TRANSMITTING CHIEF ENGINEER  
RANDOLPH'S COMMUNICATION TO THE  
JACKSON & CORBETT COMPANY IN REF-  
ERENCE TO THE SUBSTRUCTURE OF  
THE RANDOLPH STREET BRIDGE.

Mr. Braden, Chairman of the Committee  
on Engineering, presented a report from  
the Committee, as follows:

CHICAGO, November 6, 1901.

To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:

GENTLEMEN—The Committee on Engi-  
neering herewith presents a communica-  
tion from the Chief Engineer, together  
with a copy of a communication addressed  
by him to Jackson & Corbett Company,  
contractors for the substructure of Ran-  
dolph Street Bridge, in which he calls the  
attention of said contractors to Clauses 33  
and 34 in the contract for said work, and  
also Clause 59 of the bond furnished with  
said contract.

The Committee having carefully con-  
sidered the same recommends that said  
communication be printed in the Proceed-  
ings of your Honorable Body and placed  
on file.

Respectfully submitted,

(Signed) JOSEPH C. BRADEN,  
Chairman.

WM. H. BAKER,  
THOMAS A. SMYTH,  
THOMAS J. WEBB,  
FRANK X. CLOIDT,  
FRANK WENTER,

Committee on Engineering.

On motion of Mr. Wenter, seconded by  
Mr. Cloidt, the report was adopted and the

recommendations contained therein con-  
curred in.

Yeas—Messrs. Baker, Braden, Carter,  
Cloidt, Legner, Smyth, Webb and Wen-  
ter—Eight.

Nays—None.

The following is the communication  
from Chief Engineer Randolph to the  
Jackson & Corbett Company, contractors  
for the substructure of the Randolph Street  
Bridge, referred to in the report of the  
Committee on Engineering:

CHICAGO, November 2, 1901.

Messrs. Jackson & Corbett Co., The Rookery, City:

GENTLEMEN—I call your attention to Clause  
33, under the head of "Examining Site" and  
Clause 34 under the head of "Protection of Ad-  
jacent Structure," as contained in your con-  
tract for the construction of the Randolph  
Street Bridge, under date of July 1, 1901.

"Clause 33—Examining Site—Prospective  
bidders for this work are required to carefully  
examine the existing structure to inform him-  
self, or themselves, as to the magnitude and  
nature of the contemplated removals, and also  
the facilities for the delivery of new material  
at the site. No plea of ignorance of what is  
required, as a result of failure to make proper  
examinations, will in any case be accepted as  
a sufficient excuse for any failure or omission  
on the part of the contractor to fulfill in every  
detail all the requirements of this contract."

"Clause 34—Protection of Adjacent Struc-  
tures—The contractor shall take all necessary  
precautions for the protection of walls and  
foundations of buildings or other structures  
contiguous to the excavation made for the  
foundations of this bridge, and shall keep the  
same safe throughout the period consumed in  
the erection of the structures covered by this  
contract, and shall leave the same in a perma-  
nently safe and secure condition. All to be  
done by the contractor free of cost or liability  
for loss or damage on the part of the Sanitary  
District of Chicago."

I now call upon you to perform the obliga-  
tions imposed upon you by the two clauses  
and to proceed at once to construct the neces-  
sary coffer dams for the construction of the  
said Randolph Street Bridge, at the same time  
taking the necessary steps for protecting the  
adjacent buildings for which work you are  
under bond as shown by Clause 59 of your con-  
tract.

"Clause 59—Contractor's Bond—The contrac-  
tor shall furnish bond in the sum of forty  
thousand (\$40,000) dollars for the substructure  
of this bridge, with good and sufficient sureties,  
the same to be satisfactory to the Board of  
Trustees of the Sanitary District, conditioned  
upon the faithful performance of all the terms  
and conditions of this contract; and should the  
sureties on said bond at any time fail finan-  
cially, or be, in the opinion of the said Board  
of Trustees, insufficient security for the penal-  
ty of said bond, then, in that case, they may on  
giving ten days notice in writing, require said

contractor to furnish a new and additional bond in place of the bond so having become insufficient or worthless."

Yours truly,

ISHAM RANDOLPH.  
Chief Engineer.

COMMUNICATION FROM GEO. GIEGERICH  
IN REFERENCE TO LEASE OF CERTAIN  
ACRE PROPERTY.

The Clerk presented a communication from George Giegerich, of Lockport, Ill., offering to lease, at \$8.50 per acre, certain acre property, described as that part of the N. W. ¼, Sect. 14, on the east bank of the Main Drainage Channel and west of the west line of the right of way of the Chi-

cago, Santa Fe & California Railway Company, containing about ten acres.

Mr. Braden, seconded by Mr. Smyth, moved that the communication be referred to the Finance Committee.

The motion prevailed unanimously, and it was so ordered.

ADJOURNMENT.

On motion of Mr. Braden, seconded by Mr. Smyth, the Board adjourned.

*A. R. Porter.*  
CLERK

November 6,]

-7474-

[1901

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

NOVEMBER 13, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Forty-fifth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago, was held in the rooms of the Board, Security Building, Wednesday, November 13, 1901, at 2 o'clock, P. M.

In the absence of the President, the

Vice-President, Mr. Baker, took the chair, and the roll being called there were then

*Present*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter.  
—Eight members.

The Board was then called to order.

**MINUTES.**

On motion of Mr. Legner, seconded by Mr. Cloldt, the minutes of the regular meeting held November 6, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

American Bridge Company (Canal Street Bridge, October 31, 1901)....	\$ 2,160 00
American Bridge Company (Canal Street Bridge, extra material).....	57 84
American Bridge Company (Main Street Bridge, October 31, 1901).....	750 00
Lyden & Drews Company (Chicago River improvement, October 31, 1901).....	1,686 10

Chicago Terminal Transfer Railroad Company (Chicago Terminal Transfer Bridge, Chicago River) .....	581 00	
Isham Randolph (expense, sundry sections) .....	169 88	
Crane Company (piping Bear Trap Dam) .....	187 50	
James B. Clow & Sons (draining tail pits, Main Street Bridge) .....	30 20	
H. A. Kettering (water power development, Controlling Works) .....	13 39	
Mrs. Thos. O'Brien (water power development, Controlling Works) .....	16 10	
Wm. O'Connell (water power development, Controlling Works) .....	8 86	
Thos. F. Ryan (water power development, Controlling Works) .....	58 70	
Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company (Panhandle Permanent Bridge, Section O) .....	17 75	
		\$ 5,736 77

## ENGINEERING DEPARTMENT.

The Pittsburg Testing Laboratory, Ltd. (inspection bridge material) ...	\$ 75 87	
Montgomery Ward & Co. (boat, Illinois Valley work) .....	25 00	
Henry Stuckart (hardware) .....	1 80	
Chicago Printing and Embossing Company (stationery) .....	38 00	
Frederick Post Company (drafting material) .....	36 58	
Keuffel & Esser Company (drafting material) .....	86 70	
A. P. Little (typewriter supplies) .....	9 50	
Hibbard, Spencer, Bartlett & Co. (hardware) .....	9 66	
John A. Roebling's Sons Company (hardware) .....	15 63	
Pearson Bros. (blue prints) .....	8 97	
Eugene Dietzgen Company (blue prints) .....	4 64	
Carse Bros. Company (gasoline for launch) .....	6 60	
Oehring & Kraft (gasoline tank for launch) .....	26 80	
Hans Isak (gauge reading) .....	10 00	
Knickerbocker Ice Company (ice) .....	1 80	
The Consumers' Company (water) .....	2 25	
J. J. McMullin & Co. (ice) .....	13 00	
Henion & Hubbell (tank for storing gasoline) .....	10 83	
Hobbs & Sutphen (framing pictures for use at Controlling Works) .....	27 30	
John F. Decker & Co. (photograph material) .....	28 70	
E. H. Hellbrom (expense) .....	100 46	
Chas. Wink (expense) .....	3 40	
Yawman & Erb Manufacturing Company (Shannon filing cabinet) .....	18 00	
Fuller & Fuller Company (sponges) .....	3 50	
Central Electric Company (supplies) .....	3 36	
The Chicago Towel Supply Company (towel supplies) .....	26 50	
George B. Carpenter & Co. (paint) .....	10 85	
W. H. Salisbury & Co. (rubber boots and gloves) .....	56 50	
Isham Randolph (expense) .....	332 70	
G. M. Wisner (expense) .....	12 85	
G. M. Wisner (expense) .....	34 51	
Wm. Trinkaus (expense) .....	10 70	
E. L. Cooley (expense) .....	1 75	
J. E. Grady (expense) .....	24 46	
D. C. Custer (expense) .....	1 90	
Wm. M. McCartney (expense) .....	11 55	
		1,094 61

## CLERICAL DEPARTMENT.

Geo. E. Marshall & Co. (stationery) .....	\$ 8 50	
American Water Company (water) .....	6 75	
		15 25

## LAW DEPARTMENT.

A. H. Andrews Company (office desk and chair).....	\$ 150 00	
A. P. Little (typewriter supplies).....	4 00	
Thayer & Jackson Stationery Company (stationery).....	8 82	
John S. Runnells (services, General Counsel, October, 1901).....	416 67	579 49

## POLICE DEPARTMENT.

Standard Oil Company (oil, police stations).....	4 68
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## GENERAL ACCOUNT.

Isham Randolph (expense).....	\$ 70 30	
Jehn F. Higgins (printing proceedings).....	202 97	
Crane Company (hardware, fountain at Controlling Works).....	3 67	
The Chicago Real Estate Board (services valuing District land at Kedzie Avenue).....	41 00	
Leonard & Wright (boiler repairs, Steamer Juliet).....	155 70	
Wm. V. Werner (livery).....	3 00	476 64

## MAINTENANCE ACCOUNT.

F. G. Blakeslee (expense).....	\$ 3 65	
F. G. Blakeslee (expense).....	9 45	
Advance Packing and Supply Company (hardware, Controlling Works)	16 98	
Isham Randolph (expense).....	19 01	
Wm. Trinkaus (expense).....	1 10	
Thos. F. Ryan (coal, Controlling Works).....	7 25	
Wm. O'Connell (stove supplies, Controlling Works).....	2 12	
Norton & Co. (toilet supplies, Controlling Works).....	7 80	67 31

## BRIDGEPORT PUMPING WORKS.

Knickerbocker Ice Company (ice).....	\$ 5 70	
Isham Randolph (expense).....	2 17	7 87

## TELEPHONE LINE.

Charles Wink (expense).....	\$ 3 15	
Isham Randolph (repairs, October, 1901).....	65 00	68 15

## RIGHT OF WAY.

The Title Guarantee and Trust Company (opinion of title).....	500 00	
Grand total.....	\$ 8,550 77	

Mr. Carter, seconded by Mr. Cloldt, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

COMMUNICATION FROM THE CLERK  
TRANSMITTING REPORT SHOWING ANALYSIS AND RECLASSIFICATION OF THE ACCOUNTS OF THE SANITARY DISTRICT.

The Clerk presented the following communication:

CHICAGO, November 13, 1901.  
To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:  
GENTLEMEN—On October 30, 1900, the

President of the Board of Trustees instructed the Clerk of the District to have the books of this department gone over and the accounts re-cast, charging up the separate items of expenditure during the existence of this Board to the proper account, and to have a new set of books opened with the new classifications.

Mr. John J. Corcoran, bookkeeper of this department, with the assistance of Mr. William Trinkaus, record clerk of the Engineer's Department, have gone over this work from the time of the organization of the District and have compiled and re-classified all the accounts up to September 30, 1901, under their proper headings, and have submitted to me, as the Clerk of the District, a concise and complete record of all expenditures up to September 30, 1901, and I most respectfully submit the same for your consideration.

Respectfully submitted,

A. R. PORTER,  
Clerk.

Mr. Carter, seconded by Mr. Wenter, moved that the Clerk's communication and accompanying report be referred to the Committee on Finance for further consideration.

The motion prevailed unanimously and it was so ordered.

#### CLERK'S REPORT ON EMPLOYEES.

The Clerk presented the following report, showing the number of persons employed by the District during the month ending October 31, 1901:

CHICAGO, November 11, 1901.

To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employees in each department for the month ending October 31, 1901, as the same have been reported to me:

Engineering Department.....	58
Clerical Department. ....	4
Law Department.....	10
Treasury Department.....	1
Police Department.....	18
General.....	8
Maintenance.....	6
Total employees.....	100

Respectfully submitted,

A. R. PORTER,  
Clerk.

(Four enclosures.)

The above report, by unanimous consent, was ordered printed and filed.

#### MONTHLY REPORT OF THE TREASURY DEPARTMENT.

The Clerk presented the report of the Treasury Department for the month of October, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

#### SANITARY DISTRICT OF CHICAGO.

##### Treasurer's Report for October, 1901.

#### Receipts.

Balance on hand at date of last report.....	\$ 1,038,378 68
From County Treasurer, Sanitary District Tax Account.....	100,000 00
From A. R. Porter, Clerk, Dock, Land and Improvement and Rental Account .....	240 00
From Chicago National Bank, Interest Account .....	543 93
From Equitable Trust Company, Interest Account.....	679 46
From Home Savings Bank, Interest Account .....	339 72
Total cash received for month.....	101,803 11
	<u>\$ 1,130,180 68</u>



*Disbursements.*

Clerical Department.....	\$ 1,061 88
Treasury Department.....	393 50
Engineering Department.....	8,063 71
Construction Account.....	53,768 94
Law Department.....	5,513 33
Land Account.....	5,400 00
General Account.....	4,099 94
Bond Interest and Premium Account.....	47,500 00
Police Department.....	1,781 93
Maintenance Account.....	878 89
Total cash disbursed.....	\$ 128,961 05
Balance this date in banks, as per schedule endorsed hereon.....	1,001,219 58
	<u>\$ 1,130,180 63</u>

*Schedule.*

Chicago National Bank.....	\$ 375,280 80
Equitable Trust Company.....	400,000 00
Home Savings Bank.....	200,000 00
National Bank of Illinois.....	25,938 78
Total.....	<u>\$ 1,001,219 58</u>

CHICAGO, November 6, 1901.

F. M. BLOUNT, *Treasurer.*By S. P. BLOUNT, *Assistant Treasurer.*

APPROVAL OF BOND ON CONTRACT WITH THE HALL BASCULE BRIDGE COMPANY FOR THE PURCHASE OF DESIGN FOR A BRIDGE ACROSS THE CHICAGO RIVER AT HARRISON STREET.

Mr. Carter, Chairman of the Finance Committee, presented a report from the committee, as follows:

CHICAGO, November 18, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Finance herewith reports that the Committee has received the bond of Hall Bascule Bridge Company, required to be furnished with the contract between said firm and the District, for the right to use design for a bridge across the Chicago River at Harrison Street. The bond is in the sum of twenty-five thousand (\$25,000.00) dollars, and is signed by City Trust, Safe Deposit and Surety Company of Philadelphia. The Committee reports that it has examined said bond, and finds that the same is executed in proper form, and that the surety named thereon is sufficient.

Your Committee, therefore, recommends that said bond herewith submitted be ap-

proved, and that it be placed on file with the Clerk of the District.

Respectfully submitted,

(Signed)

Z. R. CARTER,

*Chairman.*

WM. H. BAKER,

THOMAS J. WEBB,

J. C. BRADEN,

FRANK WENTER,

THOMAS A. SMYTH,

*Committee on Finance.*

(Accompanied by signed bond, in duplicate.)

On motion of Mr. Carter, seconded by Mr. Cloldt, the report was adopted and the recommendations contained therein concurred in.

Yeas—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter—Eight.

Nays—None.

REPORT TRANSMITTING FORM OF LEASE TO F. C. TEIDT FOR CERTAIN LANDS OWNED BY THE DISTRICT.

Mr. Carter, Chairman of the Finance

Committee, presented a report from the committee, as follows:

CHICAGO, October 21, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance reports herewith a form of ground lease to be executed by the District with the party hereinafter mentioned for the use of certain lands owned by the District along the banks of the Main Channel. The lands rented are to be used for farming and grazing purposes by F. C. Teidt, of Teidtville, Cook County, Illinois, at an annual rental of twenty-nine and five-hundredths (\$29.05) dollars, payable in advance. Said land is described as follows:

That part of Lots eleven (11), five (5) and four (4) in Carrington's Subdivision of south one-half (S.  $\frac{1}{2}$ ), north of river, of Section six (6), Township thirty-seven (37) North, Range twelve (12), East of the Third Principal Meridian, lying north of the North Branch of the River Diversion and south of the south line of the right of way of the Chicago, Santa Fe and California Railroad, containing eight and three-tenths (8.3) acres more or less.

That said lease is for the term of five years, and is in conformity with the form of lease heretofore adopted by the Board of Trustees for use in cases as above.

The Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to execute on behalf of the District said lease to the party as above set forth, the said party having executed the same and having complied with the terms and conditions thereof, which were deemed necessary as conditions precedent to the execution of said lease.

Respectfully submitted,

(Signed)

Z. R. CARTER,

*Chairman.*

WM. H. BAKER,  
THOMAS J. WEBB,  
THOMAS A. SMYTH,  
J. C. BRADEN,  
WM. LEGNER,  
FRANK X. CLOIDT,  
FRANK WENTER,

*Committee on Finance.*

(One enclosure.)

On motion of Mr. Carter, seconded by Mr. Wenter, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

The following is the form of lease with F. C. Teidt.

THIS INDENTURE, Made this twenty first day of October in the year of our Lord one thousand nine hundred and one, between the Sanitary District of Chicago, a corporation organized and existing under the laws of the State of Illinois, party of the first part, and F. C. Teidt, of Teidtville, Cook County, Illinois, party of the second part.

WITNESSETH, That the said party of the first part, for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, his executors, administrators and assigns, has demised and leased to the said party of the second part all those premises situate, lying and being in the County of Cook and State of Illinois, known and described as follows, to-wit:

That part of Lots eleven (11), five (5) and four (4) in Carrington's Subdivision of south one-half (S.  $\frac{1}{2}$ ) north of river of Section six (6), Township thirty-seven (37) North, Range twelve (12), East of the Third Principal Meridian, lying north of the north bank of the River Diversion and south of the south line of the right of way of the Chicago, Santa Fe and California Railroad, containing eight and three-tenths (8.3) acres more or less, excepting therefrom the Main Drainage Channel of the Sanitary District of Chicago and a strip of land two hundred (200) feet wide on each side of said channel and adjacent thereto.

To have and to hold the above described premises, with the appurtenances, unto the said party of the second part, his executors, administrators and assigns, from the first day of November, in the year of our Lord one thousand nine hundred and one, for and during and until the thirty-first day of October, in the year of our Lord one thousand nine hundred and six.

It is further expressly covenanted and agreed, however, by and between the parties aforesaid, that the said party of the first part, its successors or assigns, reserves to itself the right, at any time, at its election, to declare said lease terminated and, either with or without process of law, and using such force

as may be necessary in so doing, to re-enter said demised premises and again repossess and enjoy said premises as in its first and former state. Said party of the first part hereby covenants and agrees, in case it does terminate this lease as above provided, and for no cause given by said party of the second part, to pay to said party of the second part such sum of money as shall be appraised as damages caused by such termination of this lease, said damages to be appraised by a board of three arbitrators, one to be appointed by the party of the first part, and one by the party of the second part, and said two so appointed to choose a third one, the award of said Board of Arbitrators to be final and binding upon both parties to this lease.

And the said party of the second part, in consideration of the leasing of the premises aforesaid by the said party of the first part to the said party of the second part, does covenant and agree with the said party of the first part, its successors and assigns, to pay the said party of the first part, as rent for said demised premises, at the office of said first party, in Chicago, the sum of one hundred, forty-five and twenty-five-hundredths (\$145.25) dollars in equal payments of \$39.05, payable annually on the first day of November of each year in advance. The said party of the first part further reserves the right to go upon said property at any time for surveying or any other corporate purposes which said party of the first part may desire to subject said property to. It is further agreed by the said party of the second part that if at the time of making the survey, as provided for herein, it is discovered that there is more tillable land in said tract than is provided for in the description of the premises herein leased, then upon due notice thereof the said party of the second part shall pay to the said first party the sum of three and fifty-hundredths dollars per acre for all such tillable land in excess of that herein described.

It is further covenanted and agreed by the said party of the second part that he will pay, or cause to be paid, all water rates and all taxes and assessments that may be laid, charged or assessed on said demised premises, pending the existence of this lease, or if at any time after any tax, assessment or water rate shall have become due or payable, the party of the second part, or his legal representatives, shall neglect to pay such water rates, tax or assessment, it may be lawful for the party of the first part to pay the same at any time thereafter, and the amount of any and all such payments so made by the party of the first part shall be deemed and taken, and are hereby declared to be so much additional and further rent for the above demised premises, due from and payable by the party of the

second part; and may be collected in the same manner, by distress or otherwise, as is hereinafter provided for the collection of other rents to grow due thereon.

And it is expressly understood and agreed by the said party of the second part hereto, for his heirs, executors, administrators and assigns, that the whole amount of rent reserved and agreed to be paid for said above demised premises, and each and every installment thereof, shall be and is hereby declared to be a valid and first lien upon any and all buildings and improvements on said premises, or that may at any time be erected, placed or put on said premises by said party of the second part, his heirs, executors and administrators or assigns, and upon his or their interests in this lease and the premises hereby demised; and that whenever and as often as any installment of rent or any other amount above declared to be deemed and taken as rent shall become due and remain unpaid for one day after the same becomes due and payable, said party of the first part, its successors, agent, attorney, or assigns, may sell at public auction, to the highest bidder for cash after having first given ten days' notice of the time and place of such sale, in some newspaper published in Cook County, all the buildings and improvements on said premises, and all the right, title and interest acquired by said party of the second part under this lease to the premises herein described, and as the attorney of said party of the second part—hereby irrevocably constituted—may make to the purchaser or purchasers thereof a suitable and proper transfer, bill of sale, or deed of the same, and out of the proceeds arising from such sale, after first paying all costs and expenses of such sale, including commissions and attorneys' fees, retain to said first party the whole amount due on said lease up to the date of such sale, rendering the surplus, if any, to said party of the second part, his heirs, executors, administrators, agent, attorney or assigns, which sale shall be a perpetual bar to and against all rights and equities of said party of the second part, his heirs and assigns, in and to the property sold.

It is expressly covenanted and agreed by said party of the second part, his executors, administrators and assigns, that he will use said above described premises for farming purposes only, and that he will not use said premises or suffer them to be used for the sale of wines, ales, liquors or any other intoxicating beverages whatsoever, or for the purpose of gambling in any manner whatsoever.

And the party of the second part further covenants with the party of the first part that he will keep said demised premises in a clean and wholesome condition, in accordance

with the ordinances and regulations of the County of Cook, and directions of the health officers, and that at the expiration of the time in this lease mentioned he will yield up said premises to the party of the first part in as good condition as when the same were entered upon by the said party of the second part, loss by fire or inevitable accident and ordinary wear excepted.

It is further agreed by the party of the second part that neither he nor his legal representatives will underlet said premises, or any part thereof, or assign this lease, without the written assent of said party of the first part first had and obtained thereto; nor use or suffer them to be used for any other purpose than that above mentioned.

It is expressly understood and agreed by and between the parties aforesaid, that if the rent above reserved, or any part thereof, shall be behind or unpaid on the day of payment whereon it ought to be paid, as aforesaid, or if any default shall be made in any of the covenants herein contained to be kept by the party of the second part, his executors, administrators or assigns, it shall be lawful for the party of the first part, or its successors, agent, attorney or assigns, at its election, to declare said term ended, and into the said demised premises, or any part thereof, either with or without process of law, to re-enter, and the party of the second part, or any other person or persons, occupying, in or upon the same, to expel, remove and put out, using such force as may be necessary in so doing, and the said premises again to repossess and enjoy as of its first and former estate, and to distrain for any rent that may be due thereon upon any property belonging to the party of the second part, whether the same be exempt from execution and distress by law or not; and the party of the second part, in that case, hereby waives all legal rights which he now has, or may have, to hold or retain any such property under any exemption laws now in force in this state, or in any other way, meaning and intending hereby to give the party of the first part, its successors, agent, attorney or assigns, a valid and first lien upon any and all goods, chattels, or other property belonging to the party of the second part as security for the payment of said rent, in manner aforesaid, anything hereinbefore contained to the contrary notwithstanding. And if at any time said term shall be ended at such election of said party of the first part, its successors, agent, attorneys or assigns, as aforesaid, or in any other way, the party of the second part does hereby covenant and agree to surrender and deliver up said above described premises and property peaceably to the said party of the first part, its successors, agent,

attorney or assigns, immediately upon the determination of said term as aforesaid; and if he shall remain in possession of the same one day after notice of such default, or after the termination of this lease, in any of the ways above named, he shall be deemed guilty of a forcible detainer of the premises under the statute, and shall be subject to all the conditions and provisions above named, and to eviction and removal, forcibly or otherwise, with or without process of law, as above stated.

And it is further understood and agreed by the said party of the second part that neither the right given in this lease to said party of the first part to collect the rent that may be due under the terms of this lease, by sale or any proceedings under the same shall in any way affect the right of said party of the first part to declare this lease void and the term hereby created ended, as above provided, upon default made by said party of the second part.

And the said party of the second part hereby waives his right to any notice from said party of the first part of its election to declare this lease at an end, under any of its provisions, or any demand for the payment of rent, or the possession of the premises leased herein; but the simple fact of the non-payment of the rent reserved shall constitute a forcible detainer as aforesaid.

The said party of the second part further agrees not to remove any building or improvements from said premises without the written consent of said party of the first part, and that the said second party shall pay and discharge all costs and attorneys' fees and expenses that shall arise from enforcing the covenants of this indenture by the party of the first part.

It is further understood and agreed that all the conditions and covenants contained in this lease shall be binding upon the heirs, executors, administrators, successors and assigns of the parties to these presents, respectively.

In witness whereof, the said parties have hereunto set their hands and seals the day and year first above written.

SANITARY DISTRICT OF CHICAGO.

[SEAL]

By WM. H. BAKER,  
Vice-President.

Attest:

A. R. PORTER,  
Clerk.

[SEAL]

F. C. TIEDT.

**REPORT IN REFERENCE TO PUBLICATION  
OF ADVERTISEMENT FOR DREDGING  
AND OTHER WORK IN THE CHICAGO  
RIVER DURING THE YEAR 1902.**

Mr. Braden, Chairman of the Engineering Committee, presented the following report from the Committee:

CHICAGO, November 12, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—The Committee on Engineering, to which was referred at a meeting of the Board of Trustees, held October 23, 1901, (page 7448 of the proceedings) the matter of advertising for bids for dredging and other work to be done in the Chicago River during the year 1902, herewith reports that the Chief Engineer of the District, under the direction of your Committee, has prepared an advertisement (a copy of which is hereto attached), and the Clerk has caused said advertisement to be inserted in newspapers published in Chicago, Milwaukee, Buffalo, Duluth and Detroit.

The Committee, therefore, recommends that its action be approved by your Honorable Body.

Respectfully submitted,

(Signed) JOS. C. BRADEN,  
Chairman.

Z. R. CARTER,  
WM. H. BAKER,  
FRANK X. CLOIDT,  
THOMAS J. WEBB,  
FRANK WENTER,  
WM. LEGNER,

*Committee on Engineering.*

On motion of Mr. Braden, seconded by Mr. Carter, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

The following is the advertisement for

bids for dredging and other work in the Chicago River during the year 1902:

**SANITARY DISTRICT OF CHICAGO.**

*To Contractors.*

Sealed proposals addressed to the Board of Trustees of the Sanitary District of Chicago and indorsed:

"Proposals for dredging the main Chicago River and the South Branch of the Chicago River and docking that portion of the river front contiguous to the portions dredged, together with other work collateral thereto" will be received by the Clerk of the said Sanitary District at Room 1110 Security building, Chicago, Illinois, until 12 m (standard time) of Thursday January 3, 1902, and will be publicly opened by said Board of Trustees at a special meeting held for that purpose on January 3, 1902, at 2 p. m.

The dredging for which said tenders are asked is for the removal of all material within the area acquired or to be acquired by the Sanitary District of Chicago for the purpose of widening the Chicago River, and the docking is to be along the river where the said widening is done. And, further, such dredging in the channel of the South Branch of the Chicago River and the South and West Forks thereof as may be ordered by the Sanitary District.

Tenders are to cover all work of the character above specified, for which the Sanitary District shall hereafter make provision in the year 1902.

The said District will secure the lands necessary to complete this improvement by the ordinary process of law and private purchase, but it will not enter into any agreement to secure all or any fixed amount of these lands within the year 1902. Bidders will therefore remember in preparing their proposals that the work to be done is not assuredly continuous, but must be done at times dependent upon the ability of the District to secure the property necessary for the proposed improvement.

The bid must be accompanied by a certified check or cash to the amount of two thousand (\$2,000) dollars. All certified checks must be drawn on some responsible bank doing business in the City of Chicago and be made payable to the order of the Clerk of the Sanitary District of Chicago.

All checks or cash deposited with this bid will be held by the Sanitary District of Chicago until all of said bids shall have been canvassed and the contract or contracts awarded and signed.

The return of said check or cash to the bidder to whom the work shall be awarded being conditioned upon the appearance of such bidder with bondsmen within ten (10) days after notice to him of said award and the execution by him of a contract with the Sanitary District for the work so awarded and giving a bond satisfactory to said Board of Trustees for the fulfillment of the same in the sum of thirty thousand (\$30,000) dollars.

All bids must be made upon blank forms furnished by the Sanitary District.

No bid will be considered unless the party making it shall furnish evidence satisfactory to the Board of Trustees of his experience and ability in that class of work, and that he can control sufficient capital to enable him to prosecute the same successfully in case the contract therefor shall be awarded him.

Bidders are required to state in their bids their individual names and places of residence in full.

Specifications and plans may be obtained at the office of the Chief Engineer, Room 1010 Security building, Chicago, Illinois.

The said Board of Trustees reserves the right to reject any and all bids.

SANITARY DISTRICT OF CHICAGO,

By WILLIAM H. BAKER,  
Vice-President.

Attest:

A. R. PORTER, Clerk.

October 30, 1901.

REPORT TRANSMITTING FORM OF AGREEMENT WITH THE HALL BASCULE BRIDGE COMPANY FOR THE RIGHT TO USE DESIGN FOR THE BRIDGE TO BE CONSTRUCTED CROSSING THE CHICAGO RIVER AT HARRISON STREET.

Mr. Braden, Chairman of the Engineering Committee, presented a report from the committee as follows:

CHICAGO, November 18, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Engineering herewith reports that, in pursuance to the authority entered by your Honorable Body on October 30 last, (see proceedings, page 7456,) it has had under consideration the proposition of the Hall Bascul Bridge Company in reference to compensation for the use of design of said company for bridge across the Chicago River at Harrison Street, and has arrived at an agreement with said Hall Bascul Bridge Company to pay said company sixteen thousand, four hundred, thirty-five and fifty-four-hundredths (\$16,435.54) dollars for the use of said design, and in pursuance of said authority of your Honorable Body has empowered the President and Clerk of the District to execute said contract, a copy of which is hereto attached.

Respectfully submitted,

(Signed) J. C. BRADEN,  
Chairman.

Z. R. CARTER,  
WM. H. BAKER,  
FRANK X. CLOIDT,  
THOMAS A. SMYTH,  
WM. LEGNER,  
Committee on Engineering.

Mr. Braden, seconded by Mr. Cloidt, moved that the report be adopted and the recommendations contained therein concurred in.

The roll being called, the motion was adopted:

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Legner and Smyth—Six.

*Nays*—Messrs. Webb and Wenter—Two.

The following is the agreement with the Hall Bascul Bridge Company:

THIS AGREEMENT, Made and entered into this eleventh day of November, A. D. 1901, by and between the Sanitary District of Chicago, party of the first part, and Hall Bascul Bridge Company, a corporation organized and existing under the laws of the State of Illinois, party of the second part, witnesseth that:

WHEREAS, The Sanitary District of Chicago, is desirous of constructing a movable highway bridge across the Chicago River in the City of Chicago, at Harrison Street, said bridge to be constructed without center pier and in place of the present bridge at said Harrison Street, across the Chicago River; and

WHEREAS, The said Hall Bascul Bridge Company claims to be the exclusive owner of a certain allowed application for patent and designs for a bascul bridge, and of the right to construct a bascul bridge under said patents and designs, in the County of Cook and State of Illinois, the plans and designs for said bascul bridge being devised and perfected by Charles F. Hall; and

WHEREAS, The said Hall Bascul Bridge Company desires to sell to the said Sanitary District of Chicago the right to construct a bascul bridge at said Harrison Street, over the Chicago River, according to the plans, and under the designs, for a bascul bridge, designed and perfected by said Charles F. Hall.

Now, Therefore, It is agreed between the parties hereto:

1. That the said Hall Bascul Bridge Company hereby sells, transfers and sets over to the said Sanitary District of Chicago, for the sum of sixteen thousand, four hundred thirty-five and fifty-four one-hundredths (\$16,435.54) dollars, the right to use the design and construct one bridge under the designs and patent to be issued to the said Hall Bascul Bridge Company on the allowed application of said Charles F. Hall, at Harrison Street and the Chicago River aforesaid.

2. Said Hall Bascul Bridge Company further agrees to prepare and deliver to the said Sanitary District of Chicago, the design and general plan for said bridge within five days. Said plans shall be so complete in detail as to enable persons desiring to submit bids for the construction of said bridge, upon said designs and plans, to intelligently bid thereon; and

said plans shall also be so complete in every detail, both of structure and machinery, that the shop plans can be readily and promptly made therefrom. If, in the judgment of the Chief Engineer of the Sanitary District of Chicago, the said plans are not so complete in detail, then the said Hall Bascule Bridge Company shall forthwith so elaborate said plans as to comply with the directions of the said Chief Engineer. In the event of said party of the second part failing to comply with the directions of the said Chief Engineer, as aforesaid, then the said Sanitary District of Chicago may, at its election, and without notice to said party of the second part, elaborate said plans and charge the expense thereof to the said party of the second part; and the said Chief Engineer shall have the right to examine said plans at all reasonable times while the same are being made by the said party of the second part. All of said plans, before acceptance by the said Sanitary District of Chicago, shall be subject to the approval of the said Chief Engineer of the Sanitary District of Chicago.

3. The said Hall Bascule Bridge Company hereby also agrees to examine and check the shop plans for said bridge and to supervise the construction and erection of said bridge without further compensation from the said party of the first part than the said sum of sixteen thousand, four hundred thirty-five and fifty-four one-hundredths (\$16,435.54) dollars, to the end that the said bridge may be constructed in conformity with the said design and plans and specifications furnished by said party of the second part.

4. It is further agreed that the said Hall Bascule Bridge Company will cause to be executed and delivered to the said Sanitary District of Chicago a good and sufficient bond, in the penal sum of twenty-five thousand (\$25,000) dollars, with a surety company as surety thereon, to be approved by the Committee on Finance of the Sanitary District of Chicago, conditioned for the successful operation of said bridge when completed according to the design, plans and specifications furnished by said party of the second part; also conditioned to indemnify, keep and save harmless the said Sanitary District of Chicago against all liabilities, judgments, costs, damages and expenses which may in any way come against or result to said Sanitary District of Chicago on account of any infringement, or alleged infringement, in law or equity, of any patent right, or patents, by reason of the construction of said bridge in accordance with said design; and also conditioned for the faithful performance of all of said party's obligations under this agreement.

5. It is further agreed between the parties hereto that upon the proper execution of this

agreement and the acceptance by the party of the first part of the bond heretofore mentioned, and upon the delivery to and acceptance by said Sanitary District of Chicago of said plans above mentioned, said party of the first part will pay to the said party of the second part the said sum of sixteen thousand, four hundred thirty-five and fifty-four one-hundredths (\$16,435.54) dollars.

*In Witness Whereof*, The said party of the first part has caused these presents to be signed by its President, and its corporate seal hereto affixed and attested by its Clerk; and the said second party has caused these presents to be signed by its President, and its corporate seal hereto affixed by its Secretary, the day and year first above written.

SANITARY DISTRICT OF CHICAGO,

[SEAL]

By WM. H. BAKER,  
Vice-President.

Attest:

A. R. PORTER, Clerk.

HALL BASCULE BRIDGE COMPANY,

[SEAL]

By CHARLES F. HALL,  
President.

[SEAL]

SAMUEL B. HOLZHEIMER,  
Secretary.

COMMUNICATION FROM WILLIAM HILL,  
RECEIVER FOR ANGUS & GINDELE.

The Clerk presented a communication from William Hill, receiver for the firm of Angus & Gindele, claiming that there is due said firm the sum of \$48,000.00, being for work of excavation of certain material under contract with the District on Section "E" of the Main Channel; and requesting that said sum be allowed in payment for such work.

Mr. Wenter, seconded by Mr. Smyth, moved that the communication be placed on file.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden Carter, Cloldt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

COMMUNICATION FROM COMMISSIONER OF  
PUBLIC WORKS F. W. BLOCKI.

The Clerk presented a communication from F. W. Blocki, Commissioner of Public Works, as follows:

DEPARTMENT OF PUBLIC WORKS, {  
CHICAGO, November 12, 1901. }

To the Honorable, the Trustees of the Sanitary District:

GENTLEMEN—I transmit herewith blue print showing lot purchased by the city for location of pumping station, also plan and profile of outfall sewer of the proposed channel of the North Branch of the Chicago River.

Would you kindly approve same and return so that steps may be taken towards the completion of this work and oblige,

Very respectfully,

F. W. BLOOM,

Commissioner.

Mr. Webb, seconded by Mr. Smyth, moved that the communication and accompanying plan be referred to the Special Committee on Improvement of the North Branch of the Chicago River.

The motion prevailed unanimously and it was so ordered.

COMMUNICATION FROM CITY CLERK WILLIAM LOEFFLER.

The Clerk presented a communication from William Loeffler, City Clerk, informing the Board that the ordinance granting the District permission to construct a switch track across South Western Avenue, will be taken up for consideration at a meeting of the Council Committee on Streets and Alleys West, on Monday, November 18, at 2:30 P. M., and requesting that the District be represented at said meeting.

On motion of Mr. Carter, seconded by Mr. Wenter, the communication was referred to the Sub-Committee having said matter in charge.

The motion prevailed unanimously, and it was so ordered.

COMMUNICATION FROM ARTHUR R. REYNOLDS, DIRECTOR OF STREAMS EXAMINATION.

The Clerk presented a communication from Dr. Arthur R. Reynolds, Director of Streams Examination, informing the Board that he had discharged John J. Egan, a collector of samples of water for analysis

at St. Louis, for failure to properly perform his duties.

Mr. Legner, seconded by Mr. Braden, moved that the action of Dr. Reynolds be concurred in and the communication placed on file.

The motion prevailed unanimously, and it was so ordered.

CHIEF ENGINEER DIRECTED TO TAKE NECESSARY PRECAUTIONS TO PROTECT CERTAIN BUILDING AND FOUNDATIONS ADJOINING THE RANDOLPH STREET BRIDGE APPROACHES.

Under the head of new business Mr. Braden made the following motion:

"I move that the Chief Engineer of the District be authorized and directed to take all necessary precautions and to perform, or have performed, all work necessary for the protection of the building, and the foundation thereof, situated on the northeast corner of Randolph street and the South Branch of the Chicago River, and generally known as No. 28 Market street, from all damages that might result to the same by the construction of the bridge across the South Branch of the Chicago River on the line of Randolph street, in the City of Chicago; and the Chief Engineer shall do whatever in his opinion is necessary to keep said building and the lot upon which same is situated safe throughout the period consumed in the erection of said Randolph Street bridge, so as to leave said building and the lot or lots, upon which the same is situated in as good and safe condition as the same were at the time of the commencement of the work for the construction of said bridge."

The motion was seconded by Mr. Legner.

The roll being called, the motion was adopted.

Yeas—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter—Eight.

Nays—None.

ADJOURNMENT.

On motion of Mr. Legner, seconded by Mr. Cloldt, the Board adjourned.

A. R. Porter,  
CLERK



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

NOVEMBER 14, 1901.

OFFICIAL RECORD.

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

SPECIAL MEETING.

A Special Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Thursday, November 14, 1901, at 8 o'clock, P. M., pursuant to call.

In the absence of the President, the Vice-President, Mr. Baker, presided.

The roll being called, there were present Messrs. Baker, Braden, Carter, Cloidt, Legner, Smyth, Webb and Wenter—Eight members.

Mr. Baker announced that the Board had been called in special session for the purpose of taking suitable action on the death of William H. Russell, former Trustee of the Sanitary District of Chicago.

Mr. Carter thereupon presented the following resolutions:

"WHEREAS, An all-wise Providence has seen proper to call from the people of this community William H. Russell, former Trustee of the Sanitary District of Chicago; and

WHEREAS, Mr. Russell served as Trustee of the Sanitary District of Chicago for a period of nearly six years, having been elected as one of the Trustees of the first Board of Trustees of the District. As such Trustee, Mr. Russell took an active part in the arduous work that devolved upon the Board in laying out the work that finally resulted in the construction of the Channel that connects Lake Michigan with the Illinois River; and

WHEREAS, It is proper that the Board of Trustees should publicly manifest the esteem in which Mr. Russell was held by those with whom he associated; therefore, be it

*Resolved*, That in the death of William H. Russell, the Sanitary District of Chicago has lost one of its most earnest and efficient friends and supporters; the people of the City of Chicago a worthy and valuable citizen; and his family a loving and affectionate husband and father; and be it

*Resolved*, Further, that these resolutions be spread upon the records of the Board, and that a copy of same be engrossed and transmitted to the family of the deceased."

Mr. Carter, seconded by Mr. Legner, moved that the resolutions, as presented, be adopted by a rising vote.

The motion prevailed unanimously by a rising vote.

ADJOURNMENT.

On motion of Mr. Cloldt, seconded by Mr. Smyth, the Board adjourned.

*A. R. Porter.*  
CLERK

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

NOVEMBER 20, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Forty-sixth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, November 20, 1901, at 2 o'clock P. M.

In the absence of the President, the

Vice-President, Mr. Baker, took the chair, and the roll being called there were then

*Present*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter  
—Eight members.

The Board was then called to order.

**MINUTES.**

On motion of Mr. Legner, seconded by Mr. Carter, the minutes of the regular meeting held November 18th, and of the special meeting held November 14th, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

Lydon & Drews Company (Canal Street Bridge, November 15, 1901)...	\$ 3,273 64
Lydon & Drews Company (Main Street Bridge, November 15, 1901)....	2,233 83
Lydon & Drews Company (Main Street Bridge, September 1, 1901).....	3,281 00
Page & Shnable (Ashland Avenue Bridge, November 15, 1901)....	1,660 19
	\$ 10,448 16

## LAW DEPARTMENT.

James Todd, Attorney (expense)..... 177 46

## GENERAL ACCOUNT.

Geo. B. Carpenter & Co. (oil, Steamer Juliet).....	\$ 4 25	
A. Seigel Gas Fixture Company (streams examination).....	13 40	
Arthur W. Palmer (streams examination).....	53 52	
Louis C. Bohle Livery Company (streams examination).....	87 00	
Jos. P. Murrell's Sons (streams examination).....	35 00	
Henry Hell Chemical Company (streams examination).....	57 57	
Fuller & Fuller Company (streams examination).....	30 43	
Walch & Wyeth (streams examination).....	10 56	
Blackwelder-Holdbrook Realty Company (streams examination).....	30 00	
Henry Alt, Jr., & Co. (streams examination).....	19 60	
Ranz-Lambrecht Stamping Tool and Manufacturing Company (streams examination).....	96 00	
Edwin O. Jordan (streams examination).....	45 65	
Arthur R. Reynolds (streams examination).....	430 13	
A. R. Porter, Clerk (expense).....	206 23	
		1,119 64
Grand total.....	\$ 11,745 36	

Mr. Carter, seconded by Mr. Cloldt, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

NOTICE OF INTENTION TO ENTER LEGAL PROCEEDINGS TO ENFORCE COMPLIANCE WITH CERTAIN CONTRACT.

The Clerk presented a communication from Tenney, McConnell, Coffeen & Harding, attorneys for Jane S. Martin, informing the Board of their intention to enter legal proceedings against the District to enforce compliance with the terms of a certain contract, alleged to have been en-

tered into with their client, to construct and maintain a levee and cut a ditch, with outlet or drain sufficient to carry off the waters from lands deeded to the District by the said Jane S. Martin.

Mr. Carter, seconded by Mr. Cloldt, moved that the communication be referred to the Judiciary Committee and Law Department, with instructions to report back to the Board as to the liability of the District in the matter referred to.

The motion prevailed unanimously, and it was so ordered.

## ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Legner, the Board adjourned.

*A. R. Porter.*  
CLERK

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

NOVEMBER 27, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Forty-seventh Regular Meeting of the Board of Trustees of the Sanitary District of Chicago, was held in the rooms of the Board, Security Building, Wednesday, November 27, 1901, at 2 o'clock, P. M.

In the absence of the President, the

Vice-President, Mr. Baker, took the chair, and the roll being called there were then

*Present*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter.  
—Eight members.

The Board was then called to order.

**MINUTES.**

On motion of Mr. Cloldt, seconded by Mr. Carter, the minutes of the regular meeting held November 20, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**PAY ROLLS.**

Engineering Department (Chief Engineer's, November, 1901).....	\$ 7,497 08
Clerical Department (Clerk's, November, 1901).....	958 38
Law Department (Attorney's, November, 1901).....	2,126 65
Treasury Department (Treasurer's, November, 1901).....	375 00
General Account (General, November, 1901).....	205 00

General Account (Trustees', November, 1901).....	\$ 2,333 38	
General Account (streams examination, November, 1901) .....	1,953 13	
Police Department (Marshal's, November, 1901).....	1,733 28	
Maintenance Account (Controlling Works, November, 1901).....	550 00	
		\$ 17,731 80

## ENGINEERING DEPARTMENT.

Ralph Modjeski (inspecting material, Eight-Track Bridge).....	63 18
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## LAW DEPARTMENT.

Kickham Scanlan (legal services).....	\$ 50 00	
John S. Ruane (services, General Counsel, November, 1901).....	416 66	
Seymour Jones (expense).....	81 60	
		498 26

## GENERAL ACCOUNT.

A. R. Porter, Clerk (expense, Steamer Juliet).....	232 48
Grand total ...	\$ 18,525 73

Mr. Carter, seconded by Mr. Cloldt, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter—Eight.

*Nays*—None.

## MONTHLY REPORT OF THE CLERICAL DEPARTMENT.

The Clerk presented the report of the Clerical Department for the month of October, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report :

CHICAGO, November 27, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith submit the re-

port of the Clerical Department for the month of October, 1901.

The total expenditures of the District for the month of October 1901, were \$223,516.30, all of which was paid by regular warrants drawn on the Treasurer.

The total amount expended on account of, and charged to, the Clerical Department was \$1,033.47, of which amount the sum of \$958.33 was for salaries and the sum of \$30.14 for general office expenses.

The total amount expended for account of, and charged to, the General Account was \$6,624.54, divided as follows:

Rent of offices for October, 1901..	\$ 478 33
Printing.....	557 03
Salaries .....	2,538 33
Streams examination.....	2,596 90
General expenses.....	453 96
Total.....	\$ 6,624 54

Of the total tax levy warrants heretofore issued, all have been redeemed, except \$10,963.29 of the levy of 1896.

The following is a tabulated statement of total expenditures for the month of October, 1901:

ACCOUNT.	AMOUNT.
Bond Account, First Issue.....	\$ 100,000 00
Interest on Bonds.....	30,000 00
Right of Way.....	21,235 66
Bridge Construction, Main Channel.....	71 00
Controlling Works, Lockport.....	3,459 67
Juliet Project .....	6,189 17

Bridge Construction, Chicago River.....	\$ 24,715 11
Capitalization and Maintenance of Bridges.....	18,288 15
Engineering Department.....	8,850 06
Clerical Department.....	1,088 47
Law Department.....	5,158 25
Treasury Department.....	898 50
Police Department.....	1,740 78
General Account.....	6,624 54
Maintenance Account.....	587 94
Telephone Line.....	114 00
Arthur R. Reynolds, Director Streams Examination.....	200 00
<b>Total.....</b>	<b>\$ 228,616 80</b>

Respectfully submitted,

(Signed)

A. R. PORTER, Clerk.

## MONTHLY REPORT OF THE LAW DEPARTMENT.

The Clerk presented the report of the Law Department for the month of October, 1901, which, by unanimous consent, was ordered printed and filed.

The following is the report:

CHICAGO, Nov. 27 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I have the honor to submit to you the report of the Law Department for the month of October, 1901.

The following are the expenses of the Law Department for the month:

Attorney's roll.....	\$ 2,126 65
Advertising.....	477 60
H. M. Christie (Harlev vs. District).....	600 00
General expenses.....	89 00
Legal services.....	1,865 00
<b>Total.....</b>	<b>\$ 5,158 25</b>

The following cases were begun during the month:

E. S. Alderman vs. Sanitary District of Chicago, No. 18646, in the Circuit Court of Will County. This is a suit for \$5,000.00 for damages to certain premises adjacent to the Desplaines River, caused by overflow.

Charles C. Gillman, surviving partner of the firm of Gillman & Co. vs. Sanitary District of Chicago, Gen. No. 26067, in the

Circuit Court of the United States for the Northern District of Illinois. This is an assumpsit suit for \$110,000.00, presumably for extras on Section 8.

In the case of James Davidson vs. The Sanitary District of Chicago, in the District Court of the United States, testimony was taken in Bay City, Michigan, on behalf of the libellant, to prove the amount of the damages claimed.

The suit of Alfred Harlev vs. The Sanitary District of Chicago for \$200,000.00, for extras on Section 1, was tried before Judge Chytraus and a jury. After being on hearing for upwards of a month, the Court finally instructed the jury to return a verdict for the Sanitary District, which was accordingly done.

In the case of John Lussem, vs. The Sanitary District of Chicago, in the Supreme Court of Illinois, an opinion has been rendered, affirming the decision of Judge Neely, refusing to issue an injunction to restrain the defendant from issuing bonds in the amount of \$2,575,000.00.

In addition to the above, the Department has been engaged in the preparation of opinions and leases, and in attending to the current litigation.

Respectfully submitted,

(Signed)

JAMES TODD,  
Attorney.

## COMMUNICATION FROM THE DIRECTOR OF STREAMS EXAMINATION.

Mr. Baker presented a communication

from Dr. Arthur R. Reynolds, Director of Streams Examination, as follows:

DEPARTMENT OF HEALTH. }  
CHICAGO.

CHICAGO, November 23, 1901.

Mr. W. H. Baker, Acting President, Board of Trustees, Sanitary District of Chicago:

DEAR SIR—On the recommendation of Prof. A. W. Palmer, in charge of the laboratory at Champaign, Illinois, I have increased the compensation of R. W. Stark from \$25.00 to \$50.00 per month.

Prof. Palmer informs me that Mr. Stark's work requires more than twice as much time as was contemplated when the compensation was first fixed.

I am pleased to inform you that reports from the various laboratories and a recent personal inspection, assure me that the work is progressing very satisfactorily.

As I advised you in my letter of the 9th inst., J. J. Egan was discharged. The work of collecting water samples which he did is now done at less than half the original cost.

Very truly yours,

ARTHUR R. REYNOLDS, M. D.

Director Streams Examination.

Mr. Wenter, seconded by Mr. Legner, moved that the communication be printed and filed.

The motion prevailed unanimously and it was so ordered.

COMMUNICATION FROM THE COMMISSIONER OF PUBLIC WORKS.

The Clerk presented a communication from F. W. Blocki, Commissioner of Public

Works, transmitting a copy of the permit granted the Sanitary District by the Department of Public Works to change the intake shaft of the water-pipe tunnel at Throop Street, and calling attention to the provision made in said permit that the expense of inspection work must be borne by the Sanitary District, and requesting that the bills for such inspection work, heretofore presented, be paid.

Mr. Wenter, seconded by Mr. Smyth, moved that the communication and accompanying copy of the permit be referred to the Committee on Engineering.

The motion prevailed unanimously and it was so ordered.

OFFER TO PURCHASE CERTAIN BUILDINGS BELONGING TO THE DISTRICT.

The Clerk presented a communication from John Ward, of Lockport, Illinois, offering to purchase two certain buildings belonging to the District and located on what is known as "Canal Section 16."

Mr. Braden, seconded by Mr. Smyth, moved that the communication be referred to the Finance Committee.

The motion prevailed unanimously and it was so ordered.

ADJOURNMENT.

On motion of Mr. Legner, seconded by Mr. Cloldt, the Board adjourned.

A. R. Porter.  
CLERK



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

DECEMBER 3, 1901.

OFFICIAL RECORD.

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

ANNUAL MEETING.

The Twelfth Annual Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Tuesday, December 3, 1901, at 2 o'clock, P. M., pursuant to rule.

The President, Mr. Jones took the chair, and the roll being called, there were then

*Present*—Messrs. Baker, Braden, Cloldt, Jones, Legner, Smyth, Webb and Wenter—Eight.

*Absent*—Mr. Carter—One.

The Board was then called to order.

PRESIDENT'S ANNUAL MESSAGE.

President Jones then presented his an-

nual message, which was read by the Clerk, and is as follows:

“CHICAGO, December 3, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—In closing my duties as presiding officer of your Honorable Body, I beg to express my sincere thanks to the Trustees who have co-operated so earnestly in the successful administration of Sanitary District affairs during the past year, and to congratulate you upon the progress we have made in the solution of the many problems which frowned so ominously upon us at the organization of this body a year ago to-day. The financial embarrassment which threatened to become an insuperable barrier to the public work necessary to conduct the volume of water required by law through the Channel and the Chicago River, has been solved by a successful appeal to the legislature for permission to increase the bonded indebtedness to the aggregate of twenty millions of

lars for the corporate purposes of the District.

The question as to the jurisdiction of the Sanitary District over the Chicago River has also been set at rest by an act of the legislature, specifically affirming our right to take charge of the river and make such improvements by deepening, widening, and the building of bridges as may be necessary for the purposes of the District. This action has again placed our bonds foremost in the markets of the country as municipal securities, and leaves no doubt as to our ability to continue the work necessary to comply with the Sanitary District Act and meet the future sanitary requirements of the constantly increasing population of the District.

#### *The Financial Situation.*

At the present time there are outstanding against the Sanitary District bonds to the amount of \$18,705,000.00; contracts for work already let call for an expenditure of \$1,400,000.00; there is now due from the County Collector and in the hands of the Treasurer of the District the sum of \$829,972.27. As the equalized valuation of the property of the District leaves no doubt that the constitutional limitation of five per cent will permit us to increase the aggregate of bonded indebtedness to twenty millions of dollars, we will, therefore, have available for the future needs of the District the amount of \$5,724,972.27, in addition to and after the execution of all existing contracts for dredging and bridges.

#### *The Contractors' Suits for Extras.*

It must be the subject of congratulation to your Honorable Body, as well as to the tax-paying public, that the raids for extras made by many of the ex-contractors of the Sanitary District in the suits begun against the municipality for enormous amounts during the past three years, have been thwarted by our diligence and by the employment of the best legal counsel of the city to supplement the indefatigable efforts of our Law Department. It has been the policy of the Board during the past year to hasten the trial of all suits of this character and the Law Department has been instructed to refuse, in every case, requests for postponement from opposing counsel, unless said postponement should be desirable to afford the District additional time for the collection of evidence and securing the attendance of witnesses. Of the \$2,650,000.00 in suits for extras and damages begun and pending by contrac-

tors, we have brought to trial and absolutely defeated during this year, claims to the amount of \$500,000.00; or about one-fourth of the total amount; and not a dollar's judgment has, during the past year, been secured by these contractors against the District. The remaining suits are being forced to trial by our Law Department as rapidly as the congested calendars of the Circuit and Superior Courts of Cook County will permit, as it is of the utmost importance that all these suits should be tried, if possible, while the facts are still fresh and while the District can secure the attendance of the many witnesses necessary to refute these claims. The work of the Law Department necessary to meet these contentions has been onerous and responsible, and I have not hesitated to recommend, in certain instances, the employment of eminent additional counsel wherever it seemed necessary to safeguard the interests of the District. This has very naturally resulted in swelling the expenses of the Law Department for the past year greater than some of the previous years; but, when it is reflected that the volume of work in that department during this period has been greater than during any previous year of the Sanitary District since its organization, and that the many suits for condemnation of property along the Chicago River have also claimed constant attention, the result in the defeated suits for extras show that these expenditures have been most judiciously made.

The arrogant demands of the Canal Commissioners that we should forever pump the volume of water necessary to maintain navigation on the "Summit Level" at Bridgeport, have been denied by the Supreme Court decision rendered during the past year in this case, which confirms our contention and releases the District from the financial burden imposed by the contract to pump, forced upon the Board by the Canal Commissioners, and which amounted, estimated on the maintenance or capitalization basis, to, approximately, \$1,425,000.00 burden to the Sanitary District. This, added to the volume of defeated suits for extras already mentioned, gives an aggregate of \$2,025,000.00 claims and demands against the Sanitary District, which we have wiped off the books by successful appeal to the courts during the past year.

#### *The Chicago River.*

The improvement of the Chicago River by

widening and deepening and the substitution of bascule bridges in lieu of the obstructive center pier structures, is progressing very satisfactorily. During the past year the Taylor Street bascule bridge has been completed and is in service, and the large railroad bridge just south of Taylor Street has also been completed. New bridges are in the course of construction, and will soon be completed, at Canal Street, Main Street and Ashland Avenue; and at Harrison Street the center pier has been removed, so that there is no longer any obstruction to the flow of water, and the altered plans are now so nearly perfected that we are proceeding with the substructure work. The contracts for new bridges at Randolph and State Streets have been let and work is now proceeding at the former site, although there has been some delay owing to the threatened danger to adjoining buildings. Work on the State Street bridge has been ordered to begin January 1, 1902, as a postponement was permitted until after the holiday season, in deference to the demand of a large number of citizens who desire to continue the use of the bridge until after the period of greatest traffic.

#### *The Calumet Problem.*

It is with regret that, owing to the hostile attitude of the large corporation interests of the Calumet region, no satisfactory step has been possible in the direction of preventing the further pollution of the lake water from that source. All legislation considered by the General Assembly at its last session, providing for the annexation of the Calumet region to the Sanitary District, in order to permit us to undertake the solution of the problem, was defeated by an active lobby at Springfield representing the corporations and real estate interests of that locality. But since all the area in question is outside the limits of the Sanitary District, we are powerless to do other than express our condemnation of present conditions and to appeal to the civic pride of the citizens of the Calumet region to adopt some means of obviating the serious menace involved in the continued flow of the sewage of the Calumet River into Lake Michigan in close proximity to the great Sixty-eighth Street water tunnel, from which 350,000 people, or one-fifth of the people of the City of Chicago, secure their water supply. Since the Drainage Canal was opened, the natural suction of 800,000 cubic feet of

water per minute from the lake has created a slight current from all points converging in the mouth of the Chicago River. As a consequence, the sewage emptying into the lake at the Calumet River is slowly drawn northward towards the mouth of the Chicago River, and in a direct line between these points is the mouth of the Sixty-eighth Street water tunnel, which must continue to be more seriously affected year by year as these conditions continue. The gravity of the situation is just at this time greatly intensified by the contrary and inconsiderate action of two branches of the municipal government of the City of Chicago. The Board of Local Improvements has just reversed the well-defined policy of ex-Commissioner of Public Works McGann against further drainage into the Calumet River, and has approved plans for an additional sewage district south of Eighty-seventh Street, containing an area of eight (8) square miles, all of which is to drain into the Calumet River if the present plans are adhered to. At the same time the Engineering Department of the City of Chicago has approved plans for an appropriation of \$1,720,000.00 for the construction of a new tunnel from the Sixty-eighth Street crib to the vicinity of the Calumet River, and thence inland to One Hundred and Third and State Streets. Thus one department of the city advocates an outlay of \$865,000.00 for the construction of fifteen miles of main sewer and the lateral and subsidiary sewers in the new district, all to drain into the Calumet River, while another department asks for \$1,720,000.00 for an additional water tunnel to pump back to the inhabitants of the same area water to be polluted by the sewage of this additional district. As this additional pollution will also affect the northern area of population supplied by the Sixty-eighth Street water tunnel, the execution of these contradictory plans will be a crime against the public health of this community, and should not be permitted if it is within the power of this District to prevent it. It is to be sincerely regretted that the salutary policy adopted by Commissioner McGann four years ago against the construction of any additional sewers to empty into the Calumet region and pollute the water supply of this city, should not have been rigidly adhered to by his successors in office and by the Board of Local Improvements, now vested with the considera-

tion of these questions. As early as May, 1897, Mayor Harrison, of the City of Chicago, in a communication to this Body, expressed his apprehension over the increasing pollution of Chicago's water supply by the Calumet River sewage, in the following language: "The people of Hyde Park and the Town of Lake are in a constant fear of serious consequences, owing to the fact that the Calumet River empties into the lake at Ninety-second Street. The pollution resulting from this is appalling, and it is said to be progressing at a rate equivalent to a population of 700,000. It is evident the flow of this river must be diverted from the lake, if the lives of the people are to be protected." It is remarkable that, in spite of this language of the Chief Executive, nearly five years ago, and of the position of his administration at that time that no further sewer should empty into the Calumet River, the Board of Local Improvements has now deliberately adopted a plan providing for the drainage of eight square miles, or an area capable of a future population of 500,000 people, into the Calumet River, to further pollute the stream now freighted with impurities equivalent to a population of 700,000.

I recommend that the appropriate committees of your Honorable Body give careful consideration to the means which may be adopted, either by application to the courts, or an appeal to public sentiment, to prevent the consummation of these plans, which will be so disastrous to the health of a large portion of the population of the Sanitary District and the City of Chicago.

*The Thirty-ninth Street and Lawrence Avenue Conduits.*

It seems impossible to hasten the progress of the construction by the City of the conduits at Thirty-ninth Street and Lawrence Avenue, so necessary to intercept and divert the flow of the north and south side sewers from the lake into the Drainage Canal. At the time the agreement for the construction of these conduits was made between the Sanitary District and the City about four years ago, it was on the assurance by the City that these conduits should be completed by May, 1900. At this time, one year and seven months after the date of the expected completion, only forty per cent. of the construction work of the Thirty-ninth Street conduit and intercepting sewers, and less than forty per

cent. of the Lawrence Avenue system have been completed; so that at this rate of progress, the City of Chicago must wait three years more before this sewage can be diverted from the lake into the Drainage Canal. All this time the sewage is flowing into the lake and the death rate from typhoid fever and other enteric diseases continues to be high, and for the last week of October, according to the reports of the Health Department, there were more deaths from typhoid fever in the City of Chicago than in any previous week for several years. It is regrettable that this harvest of suffering and death, involving a mortality of hundreds of victims per annum, should continue, when the cause is so directly attributable to the delay and apparent indifference in the prosecution of this public work. We have appealed to the courts, in the interest of the lives and health of the citizens of the Sanitary District, to compel the City to hasten the completion of these conduits, but the machinery of law is slow in its motion, and the harvest of death continues and must continue until the poisonous output and disease germs of our sewers are diverted from the lake into the Drainage Canal through intercepting sewers and conduit systems of the City of Chicago.

*River Improvement.*

The dredging of the Chicago River to a depth of 26 feet, from Lake to Robey Streets, is progressing rapidly, and will be completed by the close of the present year. It has afforded great relief in reducing the rapidity of the current at all points, and especially at the narrower cross sections, and navigation has received the benefits and suffered far less embarrassment than in previous periods since the opening of the Channel. The embarrassment to deep draft vessels, however, will continue to exist in a measure, until practical steps are taken by the City of Chicago to secure the lowering of the tunnels under the Chicago River.

*The St. Louis Case.*

The Law Department is proceeding diligently, under the direction of Attorney General Hamlin, Hon. William M. Springer and Mr. John G. Drennan, in the preparations to combat the injunction proceedings of the State of Missouri and the City of St. Louis, now pending in the Supreme Court of the United States, to restrain the flow of the Drainage Canal and Chicago's sewage down

the Des Plaines and Illinois Rivers into the Mississippi.

In this connection, I desire to express appreciation for the valuable services of Dr. A. R. Reynolds, Commissioner of Health of the City of Chicago, who, with Assistant Commissioner Dr. F. W. Reilly and Doctors John R. Neely and Adolph Gehrman, have conducted, on behalf of the Sanitary District of Chicago, the analyses of the waters of the Illinois and Mississippi Rivers for use in refuting the contentions of Missouri and the City of St. Louis. Commissioner Reynolds and his assistants have been most unremitting in their labors, and as his services have been gratuitous and wholly a matter of civic and professional pride, it is proper that some record should be made of our appreciation of his labors.

Respectfully submitted,

ALEX. J. JONES,  
*President.*"

At the conclusion of the reading of the President's message, Mr. Cloidt, seconded by Mr. Braden, moved that the same be received, printed in the Proceedings of the Board, and placed on file, and that one thousand copies thereof be printed for distribution.

The motion prevailed unanimously, and was so ordered.

#### RECESS.

Mr. Legner, seconded by Mr. Webb, moved that the Board now take a recess for fifteen minutes, so as to secure a full attendance of the members of the Board before proceeding with the election of President and Vice-President.

The motion prevailed unanimously, and it was so ordered.

The Board then took a recess.

#### ELECTION OF PRESIDENT OF THE BOARD.

On reconvening the Chair announced that the next order of business was the election of President of the Board of Trustees of the Sanitary District of Chicago for the ensuing year.

Mr. Braden nominated Mr. Thomas A.

Smyth for President of the Board for the ensuing year.

The nomination of Mr. Smyth was seconded by Mr. Baker.

Mr. Wenter nominated for President of the Board, Mr. Zina R. Carter.

There being no further nominations, the Chair directed the Clerk to call the roll on the election of President, which resulted as follows:

For Mr. Thomas A. Smyth—Messrs. Baker, Braden, Cloidt, Jones and Legner—Five.

For Mr. Zina R. Carter—Messrs. Webb and Wenter—Two.

The Chair thereupon declared Mr. Thomas A. Smyth to have been duly elected President of the Board of Trustees of the Sanitary District of Chicago for the ensuing year.

Mr. Jones called Mr. Smyth to the chair, who then thanked the members for the honor conferred upon him.

#### ELECTION OF VICE PRESIDENT.

Mr. Baker nominated for Vice-President of the Board for the ensuing year, Mr. Frank X. Cloidt.

The nomination of Mr. Cloidt was seconded by Messrs. Legner and Jones.

There being no further nominations, President Smyth directed the Clerk to call the roll on the election of Vice-President, which resulted as follows:

For Mr. Frank X. Cloidt—Messrs. Baker, Braden, Jones, Legner, Smyth, Webb and Wenter—Seven.

The Chair thereupon declared Mr. Frank X. Cloidt duly elected Vice-President of the Board for the ensuing year.

#### APPOINTMENT OF STANDING COMMITTEES.

President Smyth submitted the list of standing committees of the Board for the year 1901-1902, as follows:

*Finance*—Mr. Carter, Chairman; Messrs. Cloidt, Braden, Jones, Legner, Smyth, Webb, Wenter and Baker.

*Federal Relations*—Mr. Baker, Chair-

man; Messrs. Jones, Cloidt, Carter, Braden, Legner, Smyth, Wenter and Webb.

*Engineering* — Mr. Braden, Chairman; Messrs. Baker, Wenter, Webb, Legner, Cloidt, Carter, Jones and Smyth.

*Judiciary* — Mr. Legner, Chairman; Messrs. Jones, Baker, Braden, Carter, Cloidt, Wenter, Webb and Smyth.

*Annexation* — Mr. Cloidt, Chairman; Messrs. Braden, Carter, Wenter, Baker, Legner, Webb, Jones and Smyth.

*Labor* — Mr. Wenter, Chairman; Messrs. Legner, Webb, Smyth, Cloidt, Carter, Braden, Jones and Baker.

*Health and Public Order* — Mr. Webb,

Chairman; Messrs. Braden, Carter, Cloidt, Legner, Wenter, Jones, Baker and Smyth.

*Rules*—The President, Chairman; Messrs. Baker, Braden, Carter, Cloidt, Legner, Wenter, Jones and Webb.

#### ADJOURNMENT.

On motion of Mr. Jones, seconded by Mr. Baker, the Board adjourned.

*A. R. Porter,*  
CLERK

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

DECEMBER 4, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Forty-eighth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, December 4, 1901, at 2 o'clock P. M.

The President, Mr. Smyth, took the

chair, and the roll being called there were then

*Present*—Messrs. Braden, Carter, Cloldt, Jones, Legner, Smyth and Wenter—Seven.

*Absent*—Messrs. Baker and Webb—Two.

President Smyth then called the Board to order.

**MINUTES.**

On motion of Mr. Legner, seconded by Mr. Cloldt, the minutes of the regular meeting held November 27, 1901, were approved as printed.

**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

Lydon & Drews Company (Canal Street Bridge, December 1, 1901).	...\$ 1,915 29
Lydon & Drews Company (Main Street Bridge, December 1, 1901).....	5,886 52
Lydon & Drews Company (Chicago River Improvement, November 30, 1901) . . . . .	26,070 88
Page & Shnable (Ashland Avenue Bridge, December 1, 1901) . . . . .	1,570 20
	\$ 34,942 89

## CLERICAL DEPARTMENT.

Chicago Printing and Embossing Company (envelopes).....	\$ 23 75	
A. B. Dick Company (mimeograph supplies).....	3 40	
		\$ 27 15

## LAW DEPARTMENT.

D. Barrett (livery).....	\$ 37 50	
Wagner & Brandt (livery).....	5 50	
Geo. F. Barrett (special service, Smith & Eastman case).....	202 95	
Joseph Clay (special service, Smith & Eastman case).....	198 00	
M. L. Flannigan (special service, Smith & Eastman case).....	198 00	
Al. F. Gorman (special service, Smith & Eastman case).....	198 00	
T. C. Gleason (special service, Smith & Eastman case).....	198 00	
H. E. Kent (special service, Smith & Eastman case).....	117 41	
Frank Lupe (special service, Smith & Eastman case).....	85 40	
Frank J. McQuirk (special service, Smith & Eastman case).....	198 00	
John Nelligan (special service, Smith & Eastman case).....	198 00	
Frank H. Schafer (special service, Smith & Eastman case).....	189 50	
G. S. Spencer (special service, Smith & Eastman case).....	188 10	
D. W. Sullivan (special service, Smith & Eastman case).....	202 50	
Frank A. Tyrell (special service, Smith & Eastman case).....	207 95	
W. A. Wills (special service, Smith & Eastman case).....	155 50	
Robert C. Worms (special service, Smith & Eastman case).....	198 00	
Chas. L. Harrison (professional services, Smith & Eastman case).....	1,338 00	
Lyman E. Cooley (professional services, Smith & Eastman case).....	500 00	
P. H. Keenan (legal services, Smith & Eastman case).....	612 50	
Edw. R. Nadelhoffer (services, Smith & Eastman case).....	56 60	
E. C. Shaw (court reporting, Smith & Eastman case).....	160 00	
Henry J. Schluntz, Clerk (certified copies of court records).....	68 60	
H. E. Spleker & Co. (rebinding law books).....	2 00	
Geo. E. Marshall & Co. (stationery).....	8 89	
Cameron, Amberg & Co. (stationery).....	6 15	
Stephen D. Griffin (expense, Smith & Eastman case).....	58 98	
		\$ 5,535 03

## POLICE DEPARTMENT.

E. J. Coen, Marshal (expense).....	34 60
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## GENERAL ACCOUNT.

The Chicago Daily Republican (advertising).....	\$ 17 00	
The Chicago Chronicle Company (advertising).....	16 20	
Tribune Company (advertising).....	25 50	
Chas. H. Fuller's Advertising Agency (advertising).....	67 95	
Thos. B. Banner (repairs, Steamer Juliet).....	91 75	
H. Channon Company (painting deck, Steamer Juliet).....	65 00	
Robert Tarrant (repairing engine, Steamer Juliet).....	1 50	
American Express Company (streams examination).....	28 01	
C. L. Ricketts (engrossing).....	25 00	
Security Building Receivership (rent, offices, December, 1901).....	478 33	
		\$ 816 24
Grand total.....		\$ 41,855 91



Mr. Carter, seconded by Mr. Cloldt, moved that the vouchers, as read and shown above, be approved and ordered paid; Mr. Carter stating that he reserved the right, on roll call, to vote against the approval of a certain voucher contained in the list presented.

The roll being called, the vote was as follows:

*Yeas*—Messrs. Braden (except as to Law Department voucher for professional services in the case of Smith & Eastman vs. The Sanitary District in favor of Lyman E. Cooley, for \$500.00, on which Mr. Braden voted, nay); Carter (except as to Law Department voucher for legal services in the case of Smith & Eastman vs. The Sanitary District, in favor of P. H. Keenan, for \$612.50 on which Mr. Carter voted nay); Cloldt, Jones, Legner, Smyth and Wenter (except as to Law Department voucher for legal services in the case of Smith & Eastman vs. The Sanitary District, in favor of P. H. Keenan, for \$612.50; and except, also, for so much of the Construction Account voucher, for Chicago River improvement, in favor of the Lydon & Drews Company, for \$26,070.88, as is for the work of excavation below the depth of twenty-one feet, on all of which Mr. Wenter voted, nay) — Seven.

*Nays* — None (except as above stated).

Upon this result the Chair declared the motion carried.

#### CLERK'S REPORT ON EMPLOYEES.

The Clerk presented the following report, showing the number of persons employed by the Sanitary District during the month ending November 30, 1901, which, by unanimous consent, was ordered printed and placed on file:

CHICAGO, December 4, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the month ending November 30, 1901, as the same have been reported to me:

Engineering Department.....	57
Clerical Department.....	4
Law Department.....	10
Treasury Department.....	1
Police Department.....	18

General.....	3
Maintenance.....	6

Total employes..... 99

Respectfully submitted.

A. R. PORTER,

Clerk.

(Three enclosures.)

#### MONTHLY REPORT OF THE ENGINEERING DEPARTMENT.

The Clerk presented the report of the Engineering Department for the month of October, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

CHICAGO, November 28, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith present the report of the Engineering Department for the month of October, 1901, giving the detailed operations of the same.

The value of construction work done was \$32,878.27. Vouchers were issued on this account to the amount of \$59,190.65.

The engineering expenses for the month were \$3,910.89, divided as follows: Salaries, \$7,612.10; supplies, etc., \$1,268.79. The amount vouchered on account of capitalization and maintenance of bridges was \$54,714.45. Details of the above figures are given in tabulated statements submitted herewith.

*Chicago River*—The contractor for dredging and widening the river had three dredges at work during the month as follows: Dredge No. 6 made the cut for the new dock built immediately south of Canal Street on the east side of the river and was on this work from the beginning of the month to the 8th. From the 8th to the 21st it worked at Harrison Street Bridge removing the material from underneath the old center pier. From the 21st to the end of the month it was at work west of Ashland Avenue dredging the river to 26 feet. Dredge No. 2 worked throughout the month between Loomis Street and Ashland Avenue. Dredge No. 3 worked west of Halsted Street Bridge during the month. One

piece of dock was constructed just south of Canal Street on the east side of the river.

No work was done at the State Street Bridge.

The contractors for the substructure of the Randolph Street Bridge had an average force of 14 men at work from the 1st to the 28th, receiving material, shipping old piles, assembling material for coffer-dams and equipping an old pile driver with steam hammer and new boiler on engine. During this time a little hand excavation was done at the east abutment. On the 29th a corner pile made up of two 18-inch "I" beams, rivited together, was driven just west of the southwest corner of the Jonathan Abel Building (at present occupied by the H. Channon Company). This work was intended to be done with a land driver but, owing to the fact that the leads were only wide enough to take a 16-inch beam, the work was discontinued until a steam hammer could be fitted up for the occasion. On the 31st, the contractors had a diver at work cleaning the bottom of the river of the old piers, debris, etc., so that the driving of the coffer dam would not be interfered with. The work in general progressed very slowly during the month, and at the present rate of progress these contractors will not be ready to build the foundations before the beginning of next year.

But little work was done at the Harrison Street Bridge during the month on account of the injunction which was obtained against the District. The removal of the old superstructure was finished on the 5th and the removal of the substructure on the 12th. Dredge No. 6 finished the dredging of the center of the river at this place on the 19th.

The following work was done at the C. T. T. R. Co.'s Bridge during the month: On the 1st, 2nd and 3rd, the erectors were at work adjusting the brakes. On the 5th, the electricians finished the electric work. On the 30th, the railroad company began laying rail on the bridge. A small force of men were at work during the entire month stopping leaks in the counterweight pits.

At the Canal Street Bridge, the cofferdam on the north side of the river was finished on the 9th, and filled with clay

from the 9th to the 20th. On the 24th, the contractors commenced pumping out the dam, which was found to be practically water-tight. It was found necessary to drive several clumps of piles in front of this dam on account of the sharp curve of the river at this point. The work of excavation for foundation piers was practically completed on the 12th. The regular concrete work was begun on the 14th and continued throughout the month. The anchor columns were set from the 28th to the 30th.

On the 11th the work of setting the anchor bolts in the south pier and abutment of the Main Street Bridge was finished. All of the concrete work in the south abutment was finished on the 23rd and ready for the superstructure work. The east retaining wall on the south side was begun on the 29th. Work on the north side progressed favorably throughout the month, the excavation being practically finished and the concrete started. The City Water Tunnel was completed at the end of the month.

At the Ashland Avenue Bridge the contractors finished the dredging of the south by-pass on the 14th and the concrete work of the north abutment on the 15th. On the 17th these contractors commenced the construction of the retaining walls of the north abutment on the west side of Ashland Avenue. The 45-foot anchor rods were set in the west wall on the 21st. The west retaining wall was finished on the 26th, and at the end of the month work was being done on the east retaining wall.

*Section "O."*—Shannon & Chase continued sorting lumber near the warehouse during the month.

*Section "K."*—The work of raising the Santa Fe tracks near the Belt crossing was begun by the A., T. & S. F. Ry. Co. and carried on throughout the month.

*Controlling Works.*—A daily average of sixteen men were employed at these works. The work done was in connection with the water power development and to permanent improvements, as follows: Chains were put in the four sluice gates farthest north, in order to facilitate the working of the gates, and to equalize the raising of the wedge and roller trains. Three men were engaged the larger part of the month in plastering wier tube and counter weigh

wells in the shelter houses, finishing the same on the 30th. The floor on the top of the tower house over the sluice gates was finished early in the month. Hatches on top of power house were made water tight. A wooden conduit or box was constructed, leading across the bridge over the Bear Trap Dam, for the purpose of carrying steam and water pipe to the counterweight pit in the north shelter house. Pipe was connected up and led to the counter weights in both houses. The sub tail race was pumped out and a 5-inch pipe was laid from the wheel pit to the center of the sub tail race, for the purpose of making a fountain. This work took about a week, with an average daily force of six men. A door was constructed over the conduit at the south end of the machine shop, leading to the sub tail race. On the 18th, excavation was begun in the machine shop for the foundation for dynamos. On the 21st, the concreting for the foundation was begun and was completed on the 23rd. A timber frame for dynamo foundation was built. Some time was spent in leveling off the ground west of the sub tail race, also east of the wheel pit. A stairs was placed at the approach to the bridge and the bridge floors west of the sluice gates were repaired.

In the Drafting Department, work was

continued on the 200 feet scale map of the North Branch of the Chicago River, and the following drawings were made: Plans of land acquired for the purpose of widening the South Branch of the Chicago River, from Twelfth to Sixteenth Streets, showing the buildings and railroad tracks; a plan of the location of the pumps at the Thirty-ninth Street conduit inlet, and a profile of the levees along Sections 14 and 15 of the Main Channel.

The shop plans of the Main and Canal Street Bridges were checked. Those of the Main Street Bridge have been nearly all approved by the District, and about one-half of the Canal Street plans have been approved.

In addition to the work reported, the engineer corps were principally engaged in taking flow measurements, in computing estimate notes, and in surveying, etc., in the Illinois River Valley.

I estimate that the expenses of this Department for the month of November will be \$75,000.00.

Respectfully submitted,

(Signed)

LEHAM RANDOLPH.

Chief Engineer.

# SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—QUANTITIES.

*Amount Done During October, 1901.*

CLASSIFICATION OF WORK.	Glacial Drift. Cu. Yds.	Masonry and Concrete. Cu. Yds.	Piles. Lin. Ft.
Chicago River, dredging, docking, etc. . . . .	112,500	.....	.....
Randolph Street Bridge, Chicago River.....	800	.....	.....
Harrison Street Bridge, Chicago River... ..	7,000	.....	.....
Main Street Bridge, Chicago River.....	3,865	749	.....
Ashland Avenue Bridge, Chicago River.....	355	356	1,050
Canal Street Bridge, Chicago River. ....	8,100	895	2,150
Totals.....	132,620	2,000	3,300

## SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—VALUES.

Amount Earned During October, 1901.

CLASSIFICATION OF WORK.	CHICAGO RIVER.		Main Channel. Bridges.	Controlling Works.	Totals.
	Dredging, Docking, Etc.	Bridges.			
Chicago River, dredging, docking, etc.	\$32,453 00	.....	.....	.....	\$ 32,453 00
Controlling Works at Lockport.....	.....	.....	.....	\$1,509 76	1,509 76
Randolph Street Bridge, Chicago River.....	.....	\$ 1,302 00	.....	.....	1,302 00
Chicago Terminal Transfer Railroad Company's Bridge, Chicago River.....	.....	581 00	.....	.....	581 00
Harrison Street Bridge, Chicago River.....	.....	1,400 00	.....	.....	1,400 00
Main Street Bridge, Chicago River.....	.....	12,79 50	.....	.....	12,795 50
Ashland Avenue Bridge, Chicago River.....	.....	2,913 40	.....	.....	2,913 40
Canal Street Bridge, Chicago River.....	.....	9,688 31	.....	.....	9,688 31
Southwest Boulevard Bridge, Main Channel, Section "O".....	.....	.....	\$ 3 53	.....	3 53
Pan Handle Permanent Bridge, Main Channel, Section "O".....	.....	.....	\$ 28 75	.....	28 75
Totals.....	\$32,453 00	\$28,679 34	\$ 32 27	\$ 1,509 76	\$ 63,673 27

## SANITARY DISTRICT OF CHICAGO — ENGINEERING DEPARTMENT.

## CLASSIFIED STATEMENT OF EXPENDITURES FOR THE MONTH OF OCTOBER, 1901.

CLASSIFICATION.	ENGINEERING EXPENSES			Construc- tion.	Capitaliza- tion.
	Salaries.	Supplies, Etc.	Totals.		
Maps and Plans for General Use.....	\$ 2.50	\$ 9.93	\$ 264.93		
Right of Way.....	25.10	2.68	27.68		
Hydraulic Measurements.....	7.90	66.02	463.52		
Mortar, Sand and Cement Tests.....	212.50	2.20	214.70		
Photographs of Works.....	125.00	56.00	181.00		
Thirty-ninth Street Conduit.....	338.70	3.90	242.66		
Chicago River, Dredging, Docking, etc.....	1,943.75	211.65	2,055.40	\$38,606.27	
State Street Bridge, Chicago River.....	85.00	31.68	66.85		
Randolph Street Bridge, Chicago River.....	517.68	30.06	547.74	1,139.26	
Harrison Street Bridge, Chicago River.....	425.96	51.97	477.93	1,235.00	
C. T. R. R. Co.'s Bridge, Chicago River.....	160.00	108.26	268.26	561.00	
Canal Street Bridge, Chicago River.....	932.02	57.53	1,009.55	7,484.53	
Main Street Bridge, Chicago River.....	564.65	92.12	646.77	10,846.23	
Ashland Avenue Bridge, Chicago River.....	497.50	54.90	552.40	2,548.35	
Main Channel and River Diversion Excavation, etc.....				3.53	
Southwest Boulevard Permanent Bridge, Main Channel, Section "O".....	40.00	63.18	103.18	28.75	\$ 54,714.45
Pan Handle Permanent Bridge, Main Channel, Section "O".....	130.00	2.58	132.58		
Belt Railway Company of Chicago Permanent Bridge, Main Channel, Section "K".....	437.71	230.11	647.82	6,717.70	
Disposal Works and Joliet Project.....					
Totals.....	\$7,612.10	\$1,268.79	\$8,910.89	\$59,190.65	\$ 54,714.45

**REPORT IN REFERENCE TO CLAIM FOR  
INSPECTION WORK OF THE INTAKE  
SHAFT OF THE WATER PIPE TUNNEL  
AT THROOP STREET.**

Mr. Carter, Chairman of the Finance Committee, presented a report from the Committee, as follows:

CHICAGO, December 4th, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance herewith reports a communication from F. W. Blocki, Commissioner of Public Works of the City of Chicago, in regard to certain inspection work, alleged to have been performed by the City in the changing of the intake shaft of the water pipe tunnel at Throop Street, on the northwest side of the river.

The Committee advises that the work of changing said intake was performed by the Sanitary District and was ably inspected by the District at that time, and your Committee, therefore, recommends that said claim be disallowed; and that the Clerk of the District be instructed to notify the said Commissioner of Public Works of the action of your Honorable Body.

The Committee further recommends that the Clerk be also instructed to notify said Commissioner that the District will pay the expenses of re-laying and connecting said water main in the newly constructed tunnel and shaft.

Respectfully submitted,

(Signed) Z. R. CARTER,  
*Chairman.*

J. C. BRADEN,  
ALEX. J. JONES,  
WM. LEGNER,  
FRANK WENTER,  
THOMAS A. SMYTH,  
FRANK X. CLOIDT,  
*Committee on Finance.*

(Nine enclosures.)

Mr. Carter, seconded by Mr. Braden, moved that the report be adopted, and the recommendations contained therein concurred in.

The motion prevailed unanimously, and it was so ordered.

**REPORT IN REFERENCE TO DONATION OF  
THE MODEL OF THE DRAINAGE CHAN-  
NEL TO THE CHICAGO ACADEMY OF  
SCIENCES.**

Mr. Braden, Chairman of the Committee on Engineering, presented a report from the Committee as follows:

CHICAGO, December 4, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—The Committee on Engineering herewith transmits a communication from Wm. K. Higley, Secretary of the Chicago Academy of Sciences, in regard to the donation to said academy of the model of the Drainage Channel.

After carefully considering the offer contained in said communication, the Committee recommends that said model be presented to the said Academy of Sciences upon condition that the District will have the privilege of withdrawing said model, temporarily, for exhibition purposes; all expenses of removal and return of same to be paid by the Sanitary District.

Respectfully submitted,

(Signed) JOS. C. BRADEN,  
*Chairman.*

Z. R. CARTER,  
WM. LEGNER,  
FRANK WENTER,  
FRANK X. CLOIDT,  
THOMAS A. SMYTH,  
*Committee on Engineering.*

(Twelve enclosures.)

Mr. Braden, seconded by Mr. Legner, moved that the report be adopted, and the recommendations contained therein concurred in.

The motion prevailed unanimously, and it was so ordered.

COMMUNICATION FROM CHIEF ENGINEER  
RANDOLPH, TRANSMITTING VOUCHER  
OF THE RACINE BOAT MANUFACTUR-  
ING COMPANY.

The Clerk presented the following

communication from Chief Engineer Randolph:

CHICAGO, December 4, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I transmit herewith a voucher in favor of the Racine Boat Company, Carse Bros., managers, for the sum of thirteen hundred and seventy-five (\$1,375) dollars, in payment of the amount now due under the terms of the settlement agreed to as set forth in the letter of the Chief Engineer, dated October 29, 1901, a copy of which is attached to the voucher. As will be seen by that letter, the boat company remits \$800 of the original price charged for the boat, and this District retains \$200 until such time as the speed called for by the original agreement—namely, eleven (11) miles an hour—is attained.

Respectfully submitted,

ISHAM RANDOLPH

*Chief Engineer.*

(Two enclosures.)

Mr. Jones, seconded by Mr. Carter, moved that the voucher of the Racine Boat Manufacturing Company, in the sum of \$1,375.00, accompanying the Chief Engineer's communication, be approved and ordered paid.

The roll being called, it was so ordered.

*Yeas*—Messrs. Braden, Carter, Cloldt, Jones, Legner, Smyth and Wenter—Seven.

*Nays*—None.

PETITION FROM OWNERS OF REAL ESTATE ADJACENT TO THE ILLINOIS RIVER, REQUESTING THE REMOVAL OF THE LOCK AND DAM AT COPPERAS CREEK.

The Clerk presented the following petition:

*To the Hon. Alex. J. Jones, President of the Board of Trustees, Sanitary District of Chicago, and to the said Board of Trustees:*

GENTLEMEN—The undersigned, owners of real estate adjacent to and on the line of the Illinois River, beg leave to petition your Honorable Board to remove the lock and dam in

the Illinois River at Copperas Creek, for the reason that the large flow of water now coming into the Illinois River, by reason of the operation of the Chicago Drainage Channel has damaged the lands to a very considerable extent. We are of the opinion that if your Honorable Board will investigate the conditions that maintain by the non-removal of said lock and dam, and the excessive damages caused thereby, you will, without further delay, right the unjust injury to your petitioners.

We have the honor to be,

Your very respectfully,

D. M. E. Barnes,	Frank A. Barr,
Ed. Bennett,	T. E. Gopen,
Fred Seibold,	Wm. Harney,
Geo. M. Joseph,	Frank Van Antwerp,
H. Campbell,	Fred W. Gehr,
T. Van Antwerp,	Wm. Bailey,
Henry Marshall,	J. H. Kidney,
S. B. Day,	Mickel Weis,
Edmund Weis,	Wm. Ziegler,
Margrath Ziegler,	Conrad Apell,
Conrad Merdian,	W. J. Neuhalfen,
August Appel,	Julius Meister,
Andrew Merdian,	Henry Meister,
Kate Meister,	Jos. Neuhalfen,
Wm. Neuhalfen,	E. L. Corcoran,
Hamilton Barr,	John Baumeister,
F. D. Shafer,	Paul Wunter,
Joseph Schick,	Benj. R. McClary.

*West side of Illinois River*

R. B. Fort,	F. E. Wier,
George Jenkins,	Chas. G. Seward,
C. W. Tanquary,	R. T. Ames,
N. W. Tanner,	William A. Rowe,
H. D. Bonkam,	Marian Francis,
Bernhard Merdian,	Conrad Weis,
Alex. Weis,	Frank Baumeister,
G. H. Holler,	A. F. Barkow.

*East side of Illinois River.*

Dated this 12th day of November, A. D. 1901

Mr. Jones, seconded by Mr. Legner, moved that the petition be printed and referred to the Joint Committee on Judiciary and Engineering.

The motion prevailed unanimously and it was so ordered.

ADJOURNMENT.

On motion of Mr. Braden, seconded by Mr. Carter, the Board adjourned.

L. C. LEGNER,  
*Acting Clerk.*

December 4,]

—7510—

| 1901



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

DECEMBER 11, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Forty-ninth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago, was held in the rooms of the Board, Security Building, Wednesday, December 11, 1901, at 2 o'clock, P. M.

The President, Mr. Smyth, took the chair, and the roll being called, there were then

*Present*—Messrs. Baker, Braden, Carter Cloidt, Jones, Smyth and Webb—Seven.

*Absent*—Messrs. Legner and Wenter—Two.

President Smyth then called the Board to order.

**MINUTES.**

On motion of Mr. Jones, seconded by Mr. Cloidt, the minutes of the annual meeting held December 3, and the regular meeting held December 4, 1901, were approved as printed.

v  
**VOUCHERS.**

The Clerk presented the following vouchers:

**CONSTRUCTION ACCOUNT.**

Jackson & Corbett Company (Randolph Street Bridge, December 2, 1901)\$	711 81
Western Stone Company (Randolph Street Bridge, December 5, 1901)....	157 50

American Bridge Company (Canal Street Bridge, November 30, 1901)....\$	840 00
American Bridge Company (Main Street Bridge, November 30, 1901).....	2,100 00
Francis Beldler & Co. (Belt Railway Bridge, Section K).....	33 76
H. Channon Company (Belt Railway Bridge, Section K).....	10 78
Dolese & Shepard Company (Belt Railway Bridge, Section K).....	31 60
Jas. A. Buckley (Belt Railway Bridge, Section K).....	40 00
Lydon & Drwos Company (Pan Handle Temporary Bridge, Section O)...	500 00
A. R. Porter, Clerk (account water power development, Controlling Works).....	632 21
Mrs. Thos. O'Brien (cartage, account water power development, Controlling Works).....	24 38
The Warren Electric Manufacturing Company (account electric light and power plant).....	2,997 50
	<hr/> \$ 8,079 54

## MAINTENANCE OF HIGHWAY BRIDGES.

A. R. Porter, Clerk (repairing Lockport and Wire Mills Roads Bridges) .	14 55
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## ENGINEERING DEPARTMENT.

Pittsburgh Testing Laboratory, Limited (inspecting bridge material) ....\$	81 79
E. H. Hellbron (expense, account Illinois Valley work).....	113 25
Wm. Trinkaus (expense).....	13 46
J. E. Grady (expense).....	14 73
G. M. Wisner (expense).....	9 70
Chas. Wink (expense).....	8 13
Theodore Buskirk (expense).....	6 20
Al. Goetzinger (coal, Archer Avenue office).....	8 50
Knickerbocker Ice Company (ice, Archer Avenue office).....	13 50
Keuffel & Esser Company (drafting supplies).....	2 10
Eugene Dietzgen Company (blue prints).....	9 89
Pearson Bros. (blue prints).....	12 09
R. Seelig (gauge boards).....	25 20
Hibbard, Spencer, Bartlett & Co. (hardware).....	5 94
H. Channon Company (galvanized cord, etc.).....	9 87
Henry Gebhardt (repairing office furniture).....	13 35
Standard Oil Company (oil for cement testing laboratory).....	32 33
The Consumers Company (water).....	2 25
American Water Company (water).....	3 33
Geo. E. Marshall & Co. (stationery).....	114 72
Chicago Printing and Embossing Company (printing blank forms).....	40 50
W. H. Salisbury & Co. (rubber goods).....	10 80
Hans Isak (gauge reading).....	10 00
Wm. Hofsaes (repairing reel, etc.).....	4 50
	<hr/>

566 26

## LAW DEPARTMENT.

The Chicago Chronicle Co. (advertising notice of condemnation).....\$	87 20
Anton Kraus (witness fees, Harlev vs. District).....	5 00
Louis Stroak (witness fees, Harlev vs. District).....	5 00
Adam Werner (witness fees, Harlev vs. District).....	5 00
G. F. Keller (witness fees, Harlev vs. District).....	5 00
G. C. Keller (witness fees, Harlev vs. District).....	20 00
Wm. Found (witness fees, Harlev vs. District).....	5 00
J. C. Johnson (witness fees, Harlev vs. District).....	5 00
B. Brick (witness fees, Harlev vs. District).....	5 00
John Sims (witness fees, Harlev vs. District).....	5 00

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A. Anderson (witness fees, Harlev vs. District).....	\$	5 00	
William Wireman (witness fees, Harlev vs. District).....		20 00	
	\$		172 20

## GENERAL ACCOUNT.

John F. Higgins (printing Proceedings, November, 1901).....	\$	86 70	
Consolidated Press Clipping Company (press clippings, July to November 30, 1901).....		33 30	
Pacific Express Company (express charges, account streams examination).....		21 10	
			141 10

## MAINTENANCE ACCOUNT.

Barrett Hardware Company (hardware, Controlling Works).....	\$	7 00	
Wm. O'Connell (hardware, Controlling Works).....		8 87	
Thomas F. Ryan (lumber and coal, Controlling Works).....		10 85	
Mrs. Thos. O'Brien (cartage, Controlling Works).....		4 76	
Standard Oil Company (oil, Controlling Works).....		19 10	
S. B. Spence (displacing boom, Section 17).....		50 00	
			95 58

## TELEPHONE LINE.

Chas. Wink (repairs).....			4 20
Grand total .....	\$		9,078 45

Mr. Carter, seconded by Mr. Jones, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, it was so ordered.

Yeas—Messrs. Baker, Braden, Carter, Cloldt, Jones, Smyth and Webb—Seven.

Nays—None.

## MONTHLY REPORT OF THE TREASURY DEPARTMENT.

The Clerk presented the report of the Treasury Department for the month of November, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

## SANITARY DISTRICT OF CHICAGO.

## Treasurer's Report for November, 1901.

## Receipts.

Balance on hand at date of last report.....	\$	1,001,819 58	
From County Treasurer, Sanitary District Tax Account.....	\$	100,000 00	
From Chicago National Bank, Interest Account .....		314 36	
From Equitable Trust Company, Interest Account.....		657 58	
From Home Savings Bank, Interest Account .....		328 72	
Total cash received for month.....			101,300 66
	\$		1,103,520 24

## Disbursements.

Clerical Department.....	\$	973 53	
Treasury Department.....		375 00	
Engineering Department.....		8,666 82	
Construction Account.....		52,554 08	
Law Department.....		9,328 01	

Land Account.....	\$ 22,940 86
General Account .....	11,388 87
Arthur R. Reynolds, Director of Streams Examination .....	300 00
Police Department. ....	1,733 28
Taxes on Land—Will County.....	7 25
Maintenance Account.....	635 10
Bridgeport Pumping Works.....	7 87
Telephone line.....	68 15
Bond Account (first issue).....	100,000 00
Interest on Bonds.....	30,000 00
Total cash disbursed.....	\$ 245,791 83
Balance this date in banks, as per schedule endorsed hereon.....	856,738 42
	<u>\$ 1,102,530 24</u>

*Schedule.*

Chicago National Bank.....	\$ 230,738 64
Equitable Trust Company.....	400,000 00
Home Savings Bank .....	200,000 00
National Bank of Illinois.....	25,938 78
Total.....	<u>\$ 856,738 42</u>

CHICAGO, December 9, 1901.

F. M. BLOUNT, *Treasurer.*By S. P. BLOUNT, *Assistant Treasurer.*

**REPORT IN REFERENCE TO COMPLETION  
OF CONTRACT FOR SUBSTRUCTURE WORK  
FOR THE EIGHT-TRACK RAILROAD  
BRIDGE AT CAMPBELL AVENUE.**

Mr. Braden, Chairman of the Committee on Engineering, presented a report from the committee in reference to, and accompanied by the final certificate of the Chief Engineer, in favor of McArthur Brothers Company, assignees of the Scherzer Rolling Lift Bridge Company, as to the completion of their contract for substructure work for the Eight-Track Railroad Bridge at Campbell Avenue.

The report is as follows :

CHICAGO, December 11, 1901.

*To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:*

GENTLEMEN—The Committee on Engineering herewith transmits the final certificate of the Chief Engineer in favor of McArthur Brothers Company, assignees of the Scherzer Rolling Lift Bridge Company, for the construction of the sub-structure of the Eight-Track Railroad Bridge at Campbell Avenue.

After having carefully examined said certificate and considered the subject matter thereof, the Committee recommends that the President and Clerk of the District be authorized and directed to pay, in

the usual manner, the sum of twenty-three hundred dollars and sixty-four cents (\$2,300.64) to said McArthur Brothers Company, the amount found to be due in said Chief Engineer's final certificate aforesaid, when said company shall have executed, on its part, a receipt and release in favor of the District, discharging it from all further claims or demands, of whatsoever kind or nature arising from, or growing out of, the contract for said substructure.

Respectfully submitted,

(Signed) JOS. C. BRADEN,  
*Chairman.*

WM. H. BAKER,  
Z. R. CARTER,  
FRANK X. CLOIDT,  
ALEX J. JONES,  
WM. LEGNER,  
THOMAS A. SMYTH,  
*Committee on Engineering.*

(One enclosure.)

On motion of Mr. Braden, seconded by Mr. Cloidt, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloidt, Jones, Smyth and Webb—Seven.

*Nays*—None.

The following is the final certificate of the Chief Engineer referred to in the report of the Committee.

**FINAL CERTIFICATE OF THE CHIEF ENGINEER.**

"CHICAGO, December 9, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have withheld the final certificates of McArthur Bros. Company covering the work done by them upon the Eight-Track Railroad Bridge at Campbell Avenue and Thirty-first Street until the railroad companies interested in that structure should have shown their willingness to accept the work. As there are now no claims or demands on the part of said companies which can be charged against these contractors, I now and hereby certify that the said McArthur Bros. Company, assignees of the Scherzer Rolling Lift Bridge Company, have completed all of the substructure work covered by the terms of the Scherzer Rolling Lift Bridge Company's contract, dated on the 9th day of August, 1898, as the same was assigned by the said Bridge Company to the said McArthur Bros. Company by an instrument dated July 12, 1899, the consent of the Sanitary District of Chicago to said assignment having first been obtained, all as shown upon pages 5924-27 of Proceedings, dated July 12, 1899. All of the work covered by the said contract, and the several orders of the Chief Engineer made in conformity therewith, and accepted by the railroads with which the Sanitary District was under contract to build the said bridge in conformity with the terms and conditions of said contract with this District, has been completed.

This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The following is a statement covering the same:

Excavation, 74,140 cu. yds., at 70c....	\$ 51,898 00
Portland cement concrete, 11,928.87 cu. yds., at \$5.50.....	65,806 04
Masonry, 2,728.88 cu. yds., at \$12.00...	32,745 96
Piles removed, 19,564 lin. ft., at 20c...	3,912 80
Lump sum for auxiliary work as per contract.....	65,000 00
Lump sum for completing work as per order July 12, 1899.....	120,000 00
Extra haul of 54,090 cu. yds. excavated material, hauled an average of 700.31 ft. at 1c. per yd. per 100 ft.	3,787 44
Total amount to date.....	\$342,950 24
Less 10,906¼ bbls. Portland cement at \$2.00.....	\$ 21,812 50

Less 926 empty cement sacks, at 10c.....	\$ 92 60
Less 142.8 cu. yds. stone, at \$1.10.....	156 20
	\$ 22,061 80

Less amount paid on previous estimate.....	\$18,588 21
	\$40,649 60

Amount due and unpaid \$ 2,800 64

Respectfully submitted,

ISHAM RANDOLPH,

*Chief Engineer."*

**REPORT IN REFERENCE TO CLAIM OF LOUIS HUTT FOR RECONSTRUCTING A CERTAIN DOCK.**

Mr. Braden, Chairman of the Committee on Engineering, presented the following report from the Committee:

CHICAGO, December 11, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Engineering having considered the claim of Louis Hutt, and the opinion of the Attorney in regard thereto, for expenses incurred by him in placing the dock on his property in the same condition it was prior to the purchase by the District of a certain piece of land from him and restoring the said dock on the dock line of his property, reports that the Committee having fully ascertained the facts in the matter, are satisfied that the claim for compensation for said work is reasonable and recommends that the President and Clerk be authorized and directed to pay the said Louis Hutt the sum of one thousand and nine dollars and ninety cents (\$1,009.90), upon his executing a proper receipt and release therefor.

Respectfully submitted,

(Signed) Jos. C. BRADEN,  
*Chairman,*

WM. H. BAKER,  
ALEX. J. JONES,  
Z. R. CARTER,  
FRANK X. CLOIDT,  
THOMAS A. SMYTH,  
WM. LEGNER,

*Committee on Engineering.*

(Two enclosures.)

On motion of Mr. Braden, seconded by Mr. Cloldt, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Smyth and Webb—Seven.

*Nays*—None.

**REPORT TRANSMITTING SPECIFICATIONS FOR DREDGING AND CONSTRUCTION WORK OF DOCKS AT CERTAIN POINTS IN THE CHICAGO RIVER, AND POSTPONEMENT OF TIME OF OPENING BIDS FROM JANUARY 2 TO FEBRUARY 12, 1902.**

Mr. Braden, Chairman of the Committee on Engineering, presented a report from the committee as follows:

CHICAGO, December 11, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Engineering herewith presents the specifications for dredging the Main Chicago River and the South Branch of the Chicago River, and docking that portion of the river front contiguous to the portions dredged, together with other work collateral thereto, and recommends that the same be adopted by your Honorable Body.

The Committee further recommends that, owing to the delay in preparing said specifications, that the opening of bids on said work be postponed from January 2nd to February 12th, 1902.

Respectfully submitted,

(Signed) JOS. C. BRADEN,  
*Chairman.*

WM. H. BAKER,  
Z. R. CARTER,  
THOMAS J. WEBB,  
FRANK X. CLOLDT,  
THOMAS A. SMYTH,  
WM. LEGNER,

*Committee on Engineering.*

(The report being accompanied by said specifications.)

Mr. Braden, seconded by Mr. Carter, moved that the report be adopted and the

recommendations contained therein concurred in.

The roll being called, the motion was adopted by the following vote:

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones (*except as to the clause in the specifications which provides for dredging to a depth of 16 feet at new docks, on which Mr. Jones voted nay*), Smyth and Webb—Seven.

*Nays*—None (*except as above stated*).

**MINORITY VIEWS.**

In connection with the above report of the Committee on Engineering, Mr. Jones presented the following minority views in regard to the specifications for dredging to a depth of 16 feet at dock lines, and which, by unanimous consent, were ordered printed in the Proceedings:

"GENTLEMEN—I desire to dissent from the provision of the specifications which fails to provide for dredging to 18 feet at new docks to be constructed by the Sanitary District. In my opinion, it is an unwise expenditure of money to construct docks of the superior character and depth provided for in the specifications, if the Sanitary District is not to receive a commensurate benefit by a greater depth of water for navigation, and a greater cross section for the flow to be conducted through the river. The days of a 16-foot depth in the Chicago River, even at dock lines, are past; and the limited depth to-day provided for in the specifications is a backward step and not consistent with the plans of this Board, upon which we have expended vast sums in the past two years.

ALEX. J. JONES."

**REPORT IN REFERENCE TO CLAIM OF SMITH & EASTMAN FOR BALANCE DUE ON CERTAIN CONTRACT.**

Mr. Cloldt, member of the Committee on Judiciary, presented a report from the Committee, as follows:

CHICAGO, December 11, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Judi-

ary reports that on the 9th day of January, 1908, (page 4547 of the Proceedings), the Clerk of the District was directed by your Honorable Body to retain, in accordance with the decree of the Circuit Court of Will County, in the case of the Bates Machine Company versus Smith & Eastman, et. al., from the reserve percentage of Smith & Eastman, the sum of fifty-seven hundred and fifty dollars and forty-eight cents (\$5,750.48), which was accordingly done by the withholding of Tax Warrant No. 1,099, drawn against the levy of 1896, face value \$5,750.48, which case was then pending on appeal in the Appellate Court for the Second District of Illinois.

Your Committee further reports that on January 31, 1900, (page 6278 of the Proceedings), the Board of Trustees ordered the Clerk of the District to pay the said Bates Machine Company the sum of forty-five hundred and seven dollars and seventy-five cents (\$4,507.75) upon their executing a satisfaction of the said decree, and that said amount be charged to the account of said Smith & Eastman, the judgment of the Circuit Court of Will County having been affirmed by the Supreme Court of Illinois.

The Committee herewith presents the opinion of the Attorney recommending the payment of the balance of said warrant, amounting to twelve hundred and forty-two dollars and sixty-three cents (\$1,242.68), together with the accrued interest thereon; amounting to two hundred and eighty-four dollars and fifty-two cents (\$284.52), to the said Smith & Eastman.

Your Committee, therefore, recommends that the Clerk of the District be authorized to deposit said Tax Warrant No. 1,099, of the face value of \$5,750.48, together with interest on same to October 15, 1897, amounting to \$284.52, making a total of \$6,035.00, with the Treasurer of the District and credit said amount to the account of Smith & Eastman; and the Committee further recommends that a warrant be drawn in favor of said Smith & Eastman, on the voucher of the Chief Engineer, approved by the Attorney of the District, for the sum of fifteen hundred and twenty-seven dollars and twenty-five cents

(\$1,527.25) and that said amount be charged to their account.

Respectfully submitted,

(Signed) WM. LEGER, *Chairman.*

J. C. BRADEN,  
ALEX. J. JONES,  
Z. R. CARTER.  
FRANK X. CLOIDT,  
THOMAS A. SMYTH,  
*Committee on Judiciary.*

(Two enclosures.)

On motion of Mr. Cloidt, seconded by Mr. Baker, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden Carter, Cloidt, Jones, Smyth and Webb—Seven.

*Nays*—None.

#### REPORT IN REFERENCE TO COMPENSATION TO BE PAID JOHN J. CORCORAN AND WILLIAM TRINKAUS FOR WORK OF COMPILING AND RE-CLASSIFYING THE ACCOUNTS OF THE SANITARY DISTRICT.

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee, as follows:

CHICAGO, December 4, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance, to which was referred at a meeting held November 13, 1901 (page 7477 of the Proceedings), the communication of the Clerk of the District transmitting report showing analysis and re-classification of the accounts of the Sanitary District, respectfully reports that they have carefully considered the work performed by John J. Corcoran, bookkeeper of the Clerical Department, and Wm. Trinkaus, record clerk of the Engineering Department, in the said re-classification of said accounts, and recommend that a voucher be drawn in favor of said John J. Corcoran and Wm. Trinkaus for the sum of three thousand (\$3,000.00) dollars, to be paid them as extra compensation for the work so performed, and that the record, as presented by the

Clerk, be printed in the Proceedings of your Honorable Body.

Respectfully submitted,

(Signed) Z. R. CARTER,  
*Chairman.*  
JOS. C. BRADEN,  
THOMAS A. SMYTH,  
THOMAS J. WEBB,  
ALEX. J. JONES,  
WM. LEGNER,  
*Committee on Finance.*

(One enclosure.)

On motion of Mr. Carter, seconded by Mr. Baker, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Smith and Webb—Seven.

*Nays*—None.

(For report showing analysis and re-classification of the accounts of the Sanitary District, referred to in the report of the Committee, see page 7523 of Proceedings of this date.)

REPORT TRANSMITTING FORM OF LEASE  
TO GEORGE GIEGERICH FOR CERTAIN  
ACREAGE LANDS OWNED BY THE DISTRICT.

Mr. Carter, Chairman of the Committee on Finance, presented a report from the committee, as follows:

CHICAGO, December 11, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Finance reports herewith a form of ground lease to be executed by the District with the party hereinafter mentioned for the use of certain lands owned by the District. The lands rented are to be used for farming and grazing purposes by Geo. Giegerich, of Lockport, Will County, Illinois, at an annual rental of thirty-five dollars, payable in advance. Said land is described as follows: That part of the S. W.  $\frac{1}{4}$  of Sec. 14, Township 36 North, Range 10, East of the Third Principal Meridian, lying east of a line 200 feet distant from, measured at right angles, in an easterly direction, and parallel to the east bank of the Main Drainage

Channel, lying west of the west line of the right of way of the Chicago, Santa Fe and California Railway, lying north of a line 650 feet distant from and parallel to the south line of said S. W.  $\frac{1}{4}$  of Sec. 14, and lying south 1500 feet distant from and parallel to the south line of said S. W.  $\frac{1}{4}$  of Sec. 14, containing ten (10) acres, more or less.

That said lease is for the term of one year, and is in conformity with the form of lease heretofore adopted by the Board of Trustees for use in cases as above.

The Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to execute on behalf of the District said lease to the party as above set forth, the said party having executed the same and having complied with the terms and conditions thereof, which were deemed necessary as conditions precedent to the execution of said lease.

Respectfully submitted,

(Signed) Z. R. CARTER,  
*Chairman.*  
WM. H. BAKER,  
THOMAS A. SMYTH,  
THOMAS J. WEBB,  
FRANK X. CLOIDT,  
WM. LEGNER,  
*Committee on Finance.*

(Two enclosure.)

On motion of Mr. Carter, seconded by Mr. Cloldt, the report was adopted and the recommendations contained therein concurred in.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Smyth, and Webb—Seven.

*Nays*—None.

The following is the form of lease to George Giegerich:

THIS INDENTURE, Made this twenty-ninth day of November in the year of our Lord one thousand nine hundred and one, between the Sanitary District of Chicago, a corporation organized and existing under the laws of the State of Illinois, party of the first part, and George Giegerich, of Lockport, Will County, Illinois, party of the second part.

WITNESSETH, That the said party of the first part, for and in consideration of the covenants and agreements hereinafter mentioned, to be



kept and performed by the said party of the second part, his executors, administrators and assigns, has demised and leased to the said party of the second part all those premises situate, lying and being in the County of Will, and State of Illinois, known and described as follows, to-wit:

That part of the southwest quarter (S. W.  $\frac{1}{4}$ ) of Section fourteen (14), Township thirty-six (36) North, Range ten (10) East of the Third Principal Meridian, lying east of a line two hundred (200) feet distant from (measured at right angles in easterly direction) and parallel to the east bank of the Main Drainage Channel lying west of the west line of the right of way of the Chicago Santa Fe and California Railway, lying north of a line six hundred and fifty (650) feet distant from and parallel to the south line of said southwest quarter (S. W.  $\frac{1}{4}$ ) of Section fourteen (14), and lying south of a line fifteen hundred (1500) feet distant from and parallel to the south line of said southwest quarter (S. W.  $\frac{1}{4}$ ) of Section fourteen (14), containing ten (10) acres more or less, excepting therefrom the Main Drainage Channel of the Sanitary District of Chicago and a strip of land two hundred (200) feet wide on each side of said channel and adjacent thereto.

To have and to hold the above described premises, with the appurtenances, unto the said party of the second part, his executors, administrators and assigns, from the first day of December, in the year of our Lord one thousand nine hundred and one, for and during and until November thirtieth, A. D. one thousand nine hundred and two (1902).

It is further expressly covenanted and agreed, however, by and between the parties aforesaid, that the said party of the first part, its successors or assigns, reserves to itself the right, at any time, at its election, to declare said lease terminated and, either with or without process of law, and using such force as may be necessary in so doing, to re-enter said demised premises and again repossess and enjoy said premises as in its first and former state. Said party of the first part hereby covenants and agrees, in case it does terminate this lease as above provided, and for no cause given by said party of the second part, to pay to said party of the second part such sum of money as shall be appraised as damages caused by such termination of this lease, said damages to be appraised by a board of three arbitrators, one to be appointed by the party of the first part, and one by the party of the second part, and said two so appointed to choose a third one, the award of said Board of Arbitrators to be final and binding upon both parties to this lease.

And the said party of the second part, in

consideration of the leasing of the premises aforesaid by the said party of the first part to the said party of the second part, does covenant and agree with said party of the first part, its successors and assigns, to pay the said party of the first part, as rent for said demised premises, at the office of said first party, in Chicago, the sum of thirty-five (\$35) dollars in advance. The said party of the first part further reserves the right to go upon said property at any time for surveying or any other corporate uses which said party of the first part may desire to subject said property to. It is further agreed by the party of the second part that if at the time of making the survey, as provided for herein, it is discovered that there is more tillable land in said tract than is provided for in the description of the premises herein leased, then upon due notice thereof the said party of the second part shall pay to the said first party the sum of three dollars and fifty cents (\$3.50) per acre for all such tillable land in excess of that herein described.

It is further covenanted and agreed by the said party of the second part that he will pay, or cause to be paid, all water rates and all taxes and assessments that may be laid, charged or assessed on said demised premises, pending the existence of this lease, or if at any time after any tax, assessment or water rate shall have become due or payable, the party of the second part, or his legal representatives, shall neglect to pay such water rates, tax or assessment, it may be lawful for the party of the first part to pay the same at any time thereafter, and the amount of any and all such payments so made by the party of the first part shall be deemed and taken, and are hereby declared to be so much additional and further rent for the above demised premises, due from and payable by the party of the second part; and may be collected in the same manner, by distress or otherwise, as is hereinafter provided for the collection of other rents to grow due thereon.

And it is expressly understood and agreed by the said party of the second part hereto, for his heirs, executors, administrators and assigns, that the whole amount of rent reserved and agreed to be paid for said above demised premises, and each and every installment thereof, shall be and is hereby declared to be a valid and first lien upon any and all buildings and improvements on said premises, or that may at any time be erected, placed or put on said premises by said party of the second part, his heirs, executors and administrators or assigns, and upon his or their interests in this lease and the premises hereby demised; and that whenever and as often as any installment of rent or any other amount above declared to be deemed and taken as rent

shall become due and remain unpaid for one day after the same becomes due and payable, said party of the first part, its successors, agent, attorney, or assigns, may sell at public auction, to the highest bidder for cash, after having first given ten days' notice of the time and place of such sale, in some newspaper published in Will County, all the buildings and improvements on said premises, and all the right, title and interest acquired by said party of the second part under this lease to the premises herein described, and as the attorney of said party of the second part—hereby irrevocably constituted—may make to the purchaser or purchasers thereof a suitable and proper transfer, bill of sale, or deed of the same, and out of the proceeds arising from such sale, after first paying all costs and expenses of such sale, including commissions and attorneys' fees, retain to said first party the whole amount due on said lease up to the date of such sale, rendering the surplus, if any, to said party of the second part, his heirs, executors, administrators, agent, attorney or assigns, which sale shall be a perpetual bar to and against all rights and equities of said party of the second part, his heirs and assigns, in and to the property sold.

It is expressly covenanted and agreed by said party of the second part, his executors, administrators and assigns, that he will use said above described premises for farming purposes only, and that he will not use said premises or suffer them to be used for the sale of wines, ales, liquors or any other intoxicating beverages whatsoever, or for the purpose of gambling in any manner whatsoever.

And the party of the second part further covenants with the party of the first part that he will keep said demise premises in a clean and wholesome condition, in accordance with the ordinances and regulations of the County of Will, and directions of the health officers, and that at the expiration of the time in this lease mentioned he will yield up said premises to the party of the first part in as good condition as when the same were entered upon by the party of the second part, loss by fire or inevitable accident and ordinary wear excepted.

It is further agreed by the party of the second part that neither he nor his legal representatives will underlet said premises, or any part thereof, or assign this lease, without the written assent of said party of the first part first had and obtained thereto; nor use or suffer them to be used for any other purpose than that above mentioned.

It is expressly understood and agreed by and between the parties aforesaid, that if the rent above reserved, or any part thereof, shall be behind or unpaid on the day of payment whereon it ought to be paid, as aforesaid, or if

any default shall be made in any of the covenants herein contained to be kept by the party of the second part, his executors, administrators or assigns, it shall be lawful for the party of the first part, or its successors, agent, attorney or assigns, at its election, to declare said term ended, and into the said demise premises, or any part thereof, either with or without process of law, to re-enter, and the party of the second part, or any other person or persons, occupying, in or upon the same, to expel, remove and put out, using such force as may be necessary in so doing, and the said premises again to repossess and enjoy as of its first and former estate, and to distrain for any rent that may be due thereon upon any property belonging to the party of the second part, whether the same be exempt from execution and distress by law or not; and the party of the second part, in that case, hereby waives all legal rights which he now has, or may have, to hold or retain any such property under any exemption laws now in force in this state, or in any other way, meaning and intending hereby to give the party of the first part, its successors, agent, attorney or assigns, a valid and first lien upon any and all the goods, chattels, or other property belonging to the party of the second part as security for the payment of said rent, in manner aforesaid, anything hereinbefore contained to the contrary notwithstanding. And if at any time said term shall be ended at such election of said party of the first part, its successors, agent, attorneys or assigns, as aforesaid, or in any other way, the party of the second part does hereby covenant and agree to surrender and deliver up said above described premises and property peaceably to the said party of the first part, its successors, agent, attorney or assigns, immediately upon the determination of said term as aforesaid; and if he shall remain in possession of the same one day after notice of such default, or after the termination of this lease, in any of the ways above named, he shall be deemed guilty of a forcible detainer of the premises under the statute, and shall be subject to all the conditions and provisions above named, and to eviction and removal, forcibly or otherwise, with or without process of law, as above stated.

And it is further understood and agreed by the said party of the second part that neither the right given in this lease to said party of the first part to collect the rent that may be due under the terms of this lease, by sale or any proceedings under the same shall in any way affect the right of said party of the first part to declare this lease void and the term hereby created ended, as above provided, upon default made by said party of the second part.

And the said party of the second part hereby waives his right to any notice from said party of the first part of its election to declare this lease at an end, under any of its provisions, or any demand for the payment of rent, or the possession of the premises leased herein; but the simple fact of the non-payment of the rent reserved shall constitute a forcible detainer as aforesaid.

The said party of the second part further agrees not to remove any buildings or other improvements from said premises without written consent of said party of the first part, and that the said second party shall pay and discharge all costs and attorneys' fees and expenses that shall arise from enforcing the covenants of this indenture by the party of the first part.

It is further understood and agreed that all the conditions and covenants contained in this lease shall be binding upon the heirs, executors, administrators, successors and assigns of the parties to these presents, respectively.

In witness whereof, the said parties have hereunto set their hands and seals the day and year first above written.

SANITARY DISTRICT OF CHICAGO.

[SEAL] By THOMAS A. SMYTH,  
President.

Attest:  
A. R. PORTER,  
Clerk.

[SEAL] GEO. GIEGHEICH.

COMMUNICATION AND ORDER FROM THE  
WAR DEPARTMENT GRANTING PER-  
MISSION TO INCREASE THE FLOW OF  
WATER IN THE CHICAGO RIVER FROM  
200,000 TO 250,000 CUBIC FEET PER  
MINUTE.

The President presented the following communication and permit from Assistant Secretary of War, Wm. Cary Sanger:

"WAR DEPARTMENT,  
WASHINGTON, December 6, 1901. }

GENTLEMEN—Referring to your letter of 16th ultimo, requesting, on behalf of the Sanitary District of Chicago, permission to increase the flow of water in the Chicago River from 200,000 cubic feet to 250,000 cubic feet per minute, from midnight to 4:00 p. m. daily, under authority previously granted by this Department, I have the honor to transmit herewith, for retention, an instrument granting the said Sanitary District of Chicago permission to regulate the discharge of water into the canal so that the maximum flow through

the river shall not exceed 250,000 cubic feet per minute throughout the twenty-four hours of the day, subject to the conditions set forth in the said instrument.

Very respectfully,  
WM. CARY SANGER,  
Assistant Secretary of War.

*The Board of Trustees of the Sanitary District of Chicago, Security Building, Chicago, Illinois."*

The following is the permit from the War Department:

"WHEREAS, Under date of May 8th, 1899, the Secretary of War granted permission unto the Sanitary District of Chicago to open the artificial channel from Robey Street, Chicago, to Lockport, and cause the waters of Chicago River to flow into the same, upon the following conditions *inter alia*:

"2.—That if, at any time, it becomes apparent that the current created by such drainage works in the South and Main Branches of Chicago River, be unreasonably obstructive to navigation or injurious to property, the Secretary of War reserves the right to close said discharge through said channel or to modify it to such extent as may be demanded by navigation and property interests along said Chicago River and its South Branch";

AND WHEREAS, The Secretary of War subsequently directed said Sanitary District of Chicago to regulate the discharge of water into the Chicago Drainage Canal so that the maximum flow through the Chicago River shall not exceed 200,000 cubic feet per minute from midnight to 4 p. m., nor 300,000 cubic feet per minute from 4 p. m. to midnight;

AND WHEREAS, Said Sanitary District of Chicago has applied to the Secretary of War for permission to increase the flow between midnight and 4 p. m. daily, to 250,000 cubic feet per minute, and the Chief of Engineers has recommended that the increase applied for be granted, but that the rate of flow from 4 p. m. to midnight be reduced to 250,000 cubic feet per minute, so that the flow through the Chicago River shall not exceed 250,000 cubic feet per minute throughout the 24 hours of the day;

Now, Therefore, This is to certify that, in accordance with the recommendation of the Chief of Engineers, the Secretary of War hereby gives unto said Sanitary District of Chicago permission to regulate said discharge so that the maximum flow through the Chicago River shall not exceed 250,000 cubic feet per minute throughout the 24 hours of the day, upon the following conditions:

1.—That this permission shall be in lieu of the present authorized rates of flow as stated above.

2.—That the permission herein given shall be subject to such modification as in the opin-

ion of the Secretary of War the public interests may from time to time require.

3.—That said Sanitary District of Chicago shall be responsible for all damages inflicted upon navigation interests by reason of the increase in flow herein authorized.

Witness my hand this 5th day of December, 1901.

WM. CARY SANGER,  
*Assistant Secretary of War.*"

Mr. Jones, seconded by Mr. Webb, moved that the communication and permit be received, printed in the Proceedings and placed on file as a part of the permanent records of the Board

The motion prevailed unanimously and it was so ordered.

PRESIDENT TO REQUEST PERMISSION OF THE WAR DEPARTMENT TO INCREASE THE FLOW OF WATER IN THE CHICAGO RIVER FROM 250,000 TO 300,000 CUBIC FEET PER MINUTE DURING THE MONTHS OF JANUARY, FEBRUARY AND MARCH, 1902.

Mr. Braden, seconded by Mr. Baker, moved that the Secretary of War be requested to permit an additional flow of 100,000 cubic feet, or a total of 350,000 cubic feet of water to flow through the Chicago River during the months of January, February and March, 1902.

Mr. Cloldt, seconded by Mr. Carter, moved as an amendment to Mr. Braden's motion, that the request be for an additional flow of 50,000 cubic feet per minute.

The roll being called on the amendment made by Mr. Cloldt, it was carried by the following vote:

*Yeas*—Messrs. Carter, Cloldt, Jones and Smyth—Four.

*Nays*—Messrs. Baker, Braden and Webb—Three.

The Chair thereupon directed the Clerk to call the roll on the original motion as amended, to request the Secretary of War to permit a flow of 300,000 cubic feet of water per minute in the Chicago River during the months of January, February and March, 1902.

The roll being called, it was carried by the following vote:

*Yeas*—Messrs. Carter, Cloldt, Jones, Smyth and Webb—Five.

*Nays*—Messrs. Baker and Braden—Two.

#### COMMUNICATION FROM THE ILLINOIS RIVER VALLEY ASSOCIATION.

Mr. Baker, Chairman of the Committee on Federal Relations, presented a communication from the Illinois River Valley Association, addressed to Mr. Frank Wenter, requesting the Board's co-operation to secure from the United States Congress, now in session, an appropriation for surveys for the improvement of the Illinois River.

Mr. Carter, seconded by Mr. Webb, moved that the communication be referred to the Committee on Federal Relations.

The motion prevailed unanimously and it was so ordered.

#### ORDER DIRECTING THE COMMITTEE ON FEDERAL RELATIONS TO URGE UPON THE UNITED STATES CONGRESS A SURVEY AND CONSTRUCTION OF A NAVIGABLE SHIP CANAL.

In connection with the communication from the Illinois River Valley Association, Mr. Baker presented, and seconded by Mr. Webb, moved the adoption of the following order:

"*Ordered*, That the Committee on Federal Relations be authorized and directed to take proper steps to present to Congress the navigation feature of the Chicago Drainage Canal, and to urge the recognition of our work by appropriate action of Congress in the survey and construction of the additional work necessary to a navigable ship canal, connecting the Great Lakes with the Mississippi River and the Gulf of Mexico".

The roll being called on the motion to adopt the order, it was carried.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Smyth, and Webb—Seven.

*Nays*—None.

#### ORDER TO DRAW AND ISSUE WARRANTS AGAINST AND IN ANTICIPATION OF THE TAX LEVY OF 1901.

Mr. Carter presented the following order:

"*Ordered*, That the President and Clerk

of the Sanitary District of Chicago be and they are hereby authorized and directed to draw and issue warrants in the sum not to exceed three hundred thousand (\$300,000) dollars, against and in anticipation of the taxes levied by said District for the year 1901, for the payment of the ordinary and necessary expenses of said Sanitary District, and to dispose of said warrants for the best sum obtainable, in cash, and to deposit the proceeds of said sale with the Treasurer of the District as a fund to be used only to defray the ordinary and necessary expenses of said Sanitary District of Chicago."

Mr. Carter, seconded by Mr. Baker, moved that the order as presented be adopted.

The roll being called, the motion to adopt the order was carried.

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Jones, Smyth and Webb—Seven.

*Nays*—None.

PETITION FROM OWNERS OF REAL ESTATE ADJACENT TO THE CHICAGO RIVER.

The President presented a petition from owners and lessees of property adjacent to the West Fork of the South Branch of the Chicago River, near Robey Street, requesting that the river be dredged at that point, so as to afford larger navigation facilities.

The petition, by unanimous consent, was referred to the Committee on Engineering.

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REPORT SHOWING ANALYSIS AND RECLASSIFICATION OF THE  
ACCOUNTS OF THE SANITARY DISTRICT OF CHICAGO  
FROM ITS ORGANIZATION TO SEP-  
TEMBER 30, 1901.

At a meeting of the Board held November 13, 1901, (page 7477 of Proceedings) the Clerk of the District transmitted a communication and report showing an analysis and re-classification of the accounts of the Sanitary District from its organization to September 30, 1901, and which, on said date, was referred to the Committee on Finance for further consideration. The Committee, in its report to the Board, (see page 7517 of Proceedings of this date) recommended that the record as presented be printed in the Proceedings, and it was so ordered.

The following is the communication from the Clerk of the District to the Board:

CHICAGO, November 13, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On October 30, 1900, the President of the Board of Trustees instructed the Clerk of the District to have the books of this department gone over and the accounts re-cast, charging up the separate items of expenditure during the existence of this Board to the proper account, and to have a new set of books opened with the new classifications.

Mr. John J. Corcoran, bookkeeper of this department, with the assistance of Mr. William Trinkaus, Record Clerk of the Engineer's Department, have gone over this work from the time of the organization of the District and have compiled and re-classified all the accounts up to September 30, 1901, under their proper headings, and have submitted to me, as the Clerk of District, a concise and complete record of all expenditures up to September 30, 1901, and I most respectfully submit the same for your consideration.

Respectfully submitted,

A. R. PORTER, Clerk.

The following is the communication from Mr. John J. Corcoran, transmitting the report to the Clerk of the District:

CHICAGO, October 21, 1901.

*Mr. A. R. Porter, Clerk of the Sanitary District of Chicago:*

DEAR SIR—Inviting your attention to the extra work of recasting all the accounts of this Department required by the order of the President, under date of October 30, 1900, I beg to inform you that I have completed the same and closed the old books of account covering the time from the organization of the District to September 30, 1901, a period of eleven years, and opened a new set of books of account, properly arranged to meet the future requirements and needs of the District.

To do this it was necessary to carefully check and compare each and every voucher with the account and order of the Board authorizing the expenditure during the period above referred to. Of course, you understand that this involved a very large amount of work, and that it was impossible for me to do it during business hours, or without the assistance of some other person. Pursuant to the direction of Trustee Carter, Chairman of the Finance Committee, I secured the services of Mr. William Trinkaus to assist me in the work; and, with the exception of Sundays, we have devoted to it every evening, after the closing of the office, from May 1, 1901, to October 15, 1901.

Appended hereto and made a part of this report will be found the following exhibits, viz.:

**Exhibit I.** Old Classification and Order of Accounts.

**Exhibit II.** New Classification and Order of Accounts.

**Exhibit III.**

Schedule A. Warrants drawn on Treasurer on Construction Account, transferred to Sundry Accounts.

Schedule B. Warrants drawn on Treasurer on Maintenance Account, transferred to Sundry Accounts.

Schedule C. Warrants drawn on Treasurer on Law Department Account, transferred to Sundry Accounts.

Schedule D. Warrants drawn on Treasurer on Land Account, transferred to Sundry Accounts.

Schedule E. Warrants drawn on Treasurer on General Account, transferred to Sundry Accounts.

Schedule F. Warrants drawn against Tax Levy for 1895 on Construction Account, transferred to Sundry Accounts.

Schedule G. Warrants drawn against Tax Levy for 1896 on Construction Account, transferred to Sundry Accounts.

Schedule H. Warrants drawn against Tax Levy for 1897 on Construction Account, transferred to Sundry Accounts.

Schedule I. Warrants drawn against Tax Levy for 1898 on Construction Account, transferred to Sundry Accounts.

Schedule J. Warrants drawn against Tax Levy for 1898 on Land Account, transferred to Sundry Accounts.

Schedule K. Warrants drawn against Tax Levy for 1898 on Law Department Account, transferred to Sundry Accounts.

Schedule L. Warrants drawn against Tax Levy for 1899 on Construction Account, transferred to Sundry Accounts.

Schedule M. Warrants drawn against Tax Levy for 1899 on Law Department Account transferred to Sundry Accounts.

Schedule N. Warrants drawn against Tax Levy for 1899 on General Account, transferred to Sundry Accounts.

Schedule O. Warrants drawn against Tax Levy for 1900 on Construction Account, transferred to Sundry Accounts.

Schedule P. Warrants drawn against Tax Levy for 1900 on Law Department Account, transferred to Land Damages Account.

Schedule Q. Receipts credited to Construction Account, transferred to Sundry Accounts.

Schedule R. Receipts credited to General Account, transferred to Dock and Land Improvements and Rental Account.

Schedule S. Receipts credited to Land Account, transferred to Sundry Accounts.

Schedule T. Uncollected Taxes charged to Tax Account, transferred to Delinquent Tax Account.

Schedule U. Receipts credited to Tax Account, transferred to Delinquent Tax Account.

Schedule V. Summary of Re-classification of Construction Vouchers.

Schedule W. Summary of Re-classification of Maintenance, Law Department and General Accounts Vouchers.

**Exhibit IV.** Statement of Receipts and Disbursements of the Sanitary District from organization to September 30, 1901.

Respectfully submitted,  
(Signed) J. J. CORCORAN.

## EXHIBIT I.

*Old Classification and Order of Accounts.*

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<b>F. M. Blount, Treasurer.</b>	<b>Bond Account, Fifth Issue.</b>
<b>Engineering Department.</b>	<b>Bond Account, Sixth Issue.</b>
<b>Clerical Department.</b>	<b>Bond Account, Seventh Issue.</b>
<b>Treasury Department.</b>	<b>Bond Account, Eighth Issue.</b>
<b>Law Department.</b>	<b>Bond Account, Ninth Issue.</b>
<b>General Account.</b>	<b>Bond Account, Tenth Issue.</b>
<b>Tax Account.</b>	<b>Bond Account, Eleventh Issue.</b>
<b>Interest on Tax Warrants.</b>	<b>Police Department.</b>
<b>Interest on Deposits.</b>	<b>Tax Levy, 1896.</b>
<b>Interest and Premium on Bonds.</b>	<b>Tax Levy, 1899.</b>
<b>Construction Account.</b>	<b>Tax Levy, 1900.</b>
<b>Land Account.</b>	<b>Capitalization and Maintenance of Bridges.</b>
<b>Bond Account, First Issue.</b>	<b>Maintenance Account.</b>
<b>Bond Account, Second Issue.</b>	<b>Special Commissioners Chicago Drainage</b>
<b>Bond Account, Third Issue.</b>	<b>Canal.</b>
<b>Bond Account, Fourth Issue.</b>	<b>Sundry Personal Accounts.</b>

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## EXHIBIT II.

*New Classification and Order of Accounts.*

F. M. Bleunt, Treasurer.	Chicago River Dredging, Docking, Etc.
Tax Account.	Bridge Construction, Chicago River.
Delinquent Tax Account.	I. & M. Canal Improvement, Bridgeport.
Bond Account, First Issue.	Capitalization and Maintenance of Bridges.
Bond Account, Second Issue.	Engineering Department.
Bond Account, Third Issue.	Clerical Department.
Bond Account, Fourth Issue.	Law Department.
Bond Account, Fifth Issue.	Treasury Department.
Bond Account, Sixth Issue.	Police Department.
Bond Account, Seventh Issue.	General Account.
Bond Account, Eighth Issue.	Maintenance Account.
Bond Account, Ninth Issue.	Interest and Premium on Bonds.
Bond Account, Tenth Issue.	Interest on Tax Warrants.
Bond Account, Eleventh Issue.	Dock and Land Improvements and Rental Account.
Interest on Deposits.	Land Damages.
Tax Levy, 1896.	Personal Injuries Account.
Tax Levy, 1900.	Bridgeport Pumping Works.
Right-of-Way.	Special Commissioners, Chicago Drainage Canal.
River Diversion Construction.	Taxes on Land, Cook County.
Bridge Construction, River Diversion.	Taxes on Land, Du Page County.
Main Channel Construction.	Taxes on Land, Will County.
Bridge Construction, Main Channel.	Telephone Line.
Controlling Works, Lockport.	County Collector.
Bridge Construction, Controlling Works.	Sundry Personal Accounts.
Joliet Project.	
Bridge Construction, Joliet Project.	

## EXHIBIT III

*Includes the Following Schedules:*

A B C D E F G H I J K L  
M N O P Q R S T U V W







[illegible]

NUMBER OF VOUCHER.	River Diversion Con- struction.	Bridge Con- struction, River Diversion.	Main Channel Con- struction.	Bridge Con- struction, Main Channel.	Joliet Project.	Bridge Con- struction, Joliet Project.	Chicago River Dredging, Docking, Etc.	Control- ling Works, Lockport.	Bridge Construc- tion, Chicago River.	Bridge Construc- tion, Controlling at Bridge- port.	Illinois and Michigan Canal Im- provement at Bridge- port.
8044	\$ 375 00		\$ 200 00								
8045	180 00		200 00								
8117			200 00								
8182			200 00								
8183	286 60										
8202			615 14								
8557	1,775 00		1,302 15								
8558			59 35								
8559				\$ 302 94							
8560				298 00							
8561				253 44							
8562				618 31							
8563											
8564	844 00										
9144	75 27										
9163			7 04								
9164				37 75							
9352				55 00							
9353				5 75							
9356											
9401			150 00								
9449				17 60							
9450				21 25							
9451				247 50							
9451				152 41							
9452											
12773 to 12785						\$ 203 80	\$ 6,400 00				
12839							300 20				
12840							5,724 54				
12841											
12842				1,563 49							
12843				340 10							
12844					\$ 2,154 44						
12845				620 30							
12846				158 76							
12847				1,035 05		278 39					
12848				2,919 06							
12849				3,798 23							
12850				307 09		50 00					
12851				873 79							
12852				87 98							
12853				295 75							
12854				116 50							
12855			790 00								
12856				10,130 00							
12857								\$ 180 50			
12858											
12859					204 70						
12860					267 50						

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**SCHEDULE "A"—Continued.**

[illegible]

[illegible]

NUMBER OF VOUCHERS.	River Diversion Con- struction.	Bridge Con- struction. River Diversion	Main Channel Con- struction.	Bridge Con- struction, Main Channel.	Joliet Project.	Bridge Con- struction, Joliet Project.	Chicago River Dredging, Docks, Etc.	Control- ling Works, Lockport.	Bridge Construc- tion, Chicago River.	Bridge Construc- tion, Controlling Works.	Illinois and Michigan Canal Im- provement at Bridge- port.
14111					\$ 28 75	\$ 77 99					
14162					62 70						
14164				\$ 38,482 25							
14165			\$ 793 15		166 78						
14166				78 15							
14167				8,886 28							
14201					123 33						
14202					290 23						
14203					5,461 17						
14204							\$ 2,162 41			\$ 403 42	
14205				14 00							
14206											
14207				98 77							
14208					38 47						
14209					62 94						
14210					152 87					251 09	
14211					240 00					11 57	
14212					885 15						
14213											
14214											
14215			19 27								
14216			21 47								
14217			46 17								
14218			129 50								
14219			183 15								
14220			211 11								
14221							\$ 9,765 00				
14222							1,013 76				
14223											
14224											
14225											
14226											
14227											
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[illegible]



## SCHEDULE "B."

*Vouchers Paid by Warrants Drawn on the Treasurer, Charged to Maintenance Account,  
Transferred to Bridgeport Pumping Works as per the following Schedule:*

NUMBER OF VOUCHER.	Amount.	VOUCHER NUMBER.	Amount.
12986.....	\$ 5,302 75	14356.....	\$ 34 62
13165.....	5,247 98	14357.....	49 00
13341.....	6,029 27	14358.....	58 14
13583.....	10,020 98	14360.....	498 63
13776.....	8,151 04	14361.....	1,431 62
13880.....	6,668 21	14362.....	144 79
13903.....	749 87	14363.....	2,130 89
13918.....	1,972 66	14364.....	2,113 00
13919.....	79 27	14365.....	165 39
14067.....	2 26	14366.....	65 00
14068.....	4 23	14367.....	15 16
14069.....	39 95	14406.....	221 01
14070.....	94 25	14425.....	75 80
14071.....	27 39	14427.....	436 39
14072.....	106 00	14428.....	244 81
14073.....	366 20	14507.....	10 00
14074.....	1,401 25	14508.....	6 06
14075.....	1,187 28	14509.....	8 49
14076.....	2,575 88	14510.....	5 67
14085.....	81 05	14511.....	11 84
14150.....	4 00	14512.....	36 75
14151.....	5 92	14513.....	25 20
14152.....	7 57	14514.....	33 00
14153.....	8 38	14515.....	4 00
14154.....	12 80	14516.....	9 40
14155.....	17 85	14517.....	2 10
14156.....	23 12	14518.....	10 91
14157.....	34 29	14519.....	100 64
14158.....	36 33	14520.....	123 00
14159.....	42 25	14521.....	174 77
14160.....	49 50	14522.....	2,310 60
14163.....	4 84	14523.....	5,276 91
14164.....	5 00	14556.....	1,960 25
14165.....	9 50	14557.....	13 00
14166.....	36 58	14679.....	3 30
14169.....	762 29	14680.....	4 83
14200.....	254 00	14681.....	5 00
14251.....	2,054 91	14682.....	5 79
14262.....	267 61	14683.....	10 00
14345.....	4 00	14684.....	11 30
14346.....	6 90	14685.....	11 39
14347.....	5 20	14686.....	53 58
14348.....	9 54	14687.....	100 75
14349.....	1 65	14725.....	113 34
14350.....	10 25	14726.....	2,074 20
14351.....	10 30	14745.....	612 48
14352.....	11 90	14746.....	460 36
14353.....	36 58		
14354.....	25 00		
14355.....	44 89		
		Total.....	\$75,181 20

## SCHEDULE "C."

*Vouchers Paid by Warrants Drawn on the Treasurer, Charged to Law Department, Transferred to Sundry Accounts, as per the following Schedule:*

NUMBER OF VOUCHER.	Right of Way.	Land Damages.	Dock and Land Improvements and Rental Account.	Personal Injuries Account.	Taxes on Land, Wi County.
1096.....	\$17,913 00				
1187.....	1,800 00				
1405.....	3,187 00				
1512.....	18,300 00				
1532.....	800 00				
1533.....	400 00				
1538.....	525 00				
1617.....	490 00				
1806.....		\$26,150 00			
1914.....	6,500 00				
2419.....	5,500 00				
2420.....	200 00				
7574.....			\$ 75 00		
9170.....	152 00				
12329.....				\$ 500 00	
12830.....				226 00	
12831.....				251 60	
13042.....	30 00				
13043.....	19 00				
13718.....				245 35	
14187.....					\$ 7 25
14252.....				70 50	
14728.....		399 80			
14730.....		800 00			
Totals.....	\$55,816 00	\$27,349 80	\$ 75 00	\$ 1,293 45	\$ 7 25

## SCHEDULE "D."

*Vouchers Paid by Warrants Drawn on the Treasurer, Charged to Land Account, Transferred to Sundry Accounts as per the following Schedule:*

NUMBER OF VOUCHER.	Taxes on Land, Will County.	Taxes on Land, Cook County.	Taxes on Land, DuPage County.	Dock and Land Improvements and Rental Account.
3675.....	\$ 23 45			
3723.....		\$ 605 06		
3755.....	44 99	483 57		
3774.....		371 65		
4254.....		87 79		
4573.....	40 00			
5885.....	389 98		\$ 1 77	
5996.....		399 51		
6004.....		113 68		
6044.....	8 52			
6045.....	42 83			
6222.....		732 67		
6602.....		82 66		
7791.....	107 75			
8363.....		118 64		
10085.....	73 64			
10315.....	61 49			
11626.....				\$ 58 34
12431.....	45 99			
13052.....	65 29			
13053.....	59 52			
13055.....	622 86			
13119.....	2,224 76			
13552.....				1,500 00
13758.....	194 79			
13848.....	22 93			
13885.....				58 34
14368.....				1,500 00
Totals.....	\$4,008 29	\$2,995 23	\$ 1 77	\$ 3,116 68

## SCHEDULE "E."

*Vouchers Paid by Warrants Drawn on the Treasurer, Charged to General Account, Transferred to Sundry Accounts, as per the following schedule:*

NUMBER OF VOUCHER.	Right of Way.	Personal Injuries Account.	Telephone Line.
1107.....	\$ 953 45		
4983.....		\$ 154 00	
13882.....		238 15	
14143.....			\$ 67 50
14144.....			84 13
14145.....			507 16
14146.....			575 00
14147.....			1,228 25
14283.....			100 19
14284.....			985 48
14334.....			6 00
14344.....			1,303 50
14423.....			1,787 50
14484.....			3 20
14655.....			6 41
14682.....			5 25
14683.....			30 25
14684.....			484 55
14721.....			210 10
14722.....			608 19
Totals.....	\$ 953 45	\$ 392 15	\$ 7,943 66

## SCHEDULE "F."

*Vouchers Paid by Warrants Drawn Against the Tax Levy for 1896, Charged to Construction Account, Transferred to Sundry Accounts, as per the following Schedule:*

NUMBER OF VOUCHER.	River Diversion Con- struction.	Main Channel Con- struction.	Bridge Con- struction, Main Channel.	Controlling Works, Lockport.
29 .....		\$ 300 00		
30 .....			\$ 210 44	
58 .....		100 00		
59 .....		487 58		
60 .....			986 37	
61 .....			506 80	
89 .....		200 00		
90 .....		1,800 00		
119 .....		100 00		
120 .....		17 30		
146 .....	\$ 225 00			
147 .....	1,000 00			
148 .....	1,448 00			
173 .....	3,083 72			
*174 .....		400 00		
175 .....		27 33		
176 .....		196 86		
177 .....	1,198 82			
178 .....	220 60			
179 .....			56 12	
203 .....	275 93			
204 .....	462 05			
205 .....	78 72	58 00		
206 .....	693 08			
221 .....			300 00	
236 .....		500 00		
249 .....	641 00			
276 .....	653 00			
277 .....			3,984 54	
336 .....			44 70	
336 .....			84 75	
353 .....		372 44		
354 .....			108 31	
355 .....			114 35	
356 .....			645 65	
357 .....			127 38	
*375 .....				\$ 1,622 25
376 .....	1,174 96			
388 .....			18 00	
384 .....			473 94	
385 .....			406 71	
386 .....			304 16	
387 .....			192 50	
Totals .....	\$ 11,082 90	\$ 4,359 51	\$ 9,329 72	\$ 1,622 25

\* These vouchers are final and include all amounts shown on previous estimates.

## SCHEDULE "G."

*Vouchers Paid by Warrants Drawn Against the Tax Levy of 1886, Charged to Construction Account, Transferred to Sundry Accounts as per the following Schedule:*

NUMBER OF VOUCHER.	River Diversion Con- struction.	Main Channel Con- struction.	Bridge Con- struction, Main Channel.	Controlling Works, Lockport.	Bridge Con- struction, Joliet Project.
13.....		\$ 3,535 00			
25.....			\$ 113 02		
40.....			499 51		
41.....			455 94		
42.....			557 09		
195.....		41 79			
196.....			886 89		
197-200.....		4,961 80			
*223-226.....		93,195 51			
363.....		901 37			
400.....			635 41		
401.....				\$ 2,502 41	
402-408.....			21,393 40		
451.....			58 69		
452.....			201 64		
458.....			1,300 57		
454.....		7 20			
475.....			1,057 91		
480.....		558 59			
481.....		55 18			
500-575.....				59,508 79	
*576-593.....		289,846 00			
*615-618.....		4,600 00			
631.....		668 47			
643.....	\$ 522 51				
*664-668.....	23,573 72	791,838 28			
*669-710.....		821,159 23			
718.....			697 88		
*719-729.....	54,199 05	921,447 75			
*730-766.....	10,694 68	797,632 32			
*767-799.....	3,551 05	837,238 15			
*800-835.....		819,388 19			
847-848.....		2,050 00			
*879-900.....		287,257 75			
*891-918.....		217,287 06			
*919-939.....		158,015 06			
*941-969.....	32,034 69	680,421 41			
*970-996.....	57,138 39	722,172 30			
*997-999.....		240,653 70			
1016-1017.....		2,650 00			
1039-1040.....	738 41				
1045.....					\$ 2,969 99
1049.....			678 23		
*1050-1100.....		852,122 29			
1106.....		2,789 50			
1129.....		733 65			
1130.....	471 80				
1131.....			808 64		
1132.....			817 00		
1145.....		1,598 50			
1146.....		700 00			
1161.....		334 92			
1164.....			2,030 20		
1165.....			99 68		
1166.....			1,906 87		
1171.....			656 85		
1205.....			65 92		
1208.....			340 47		
Totals.....	\$ 132,924 30	\$8,555,510 97	\$ 35,211 86	\$ 62,011 20	\$ 2,969 99

## SCHEDULE "H."

Vouchers Paid by Warrants Drawn Against the Tax Levy for 1897, Charged to Construction Account, Transferred to Sundry Accounts, as per the following Schedule:

NUMBER OF VOUCHER.	River Diversion Construction	Main Channel Construction	Bridge Con- struction, Main Channel	Bridge Con- struction, Joliet Project.	Controlling Works, Lockport.
* 1.....	\$ 117 61	\$542,449 21			
11.....		750 00			
12.....	65 80				
20.....			\$ 1,559 51		
21.....				\$ 1,644 52	
22.....				1,911 89	
23-34.....					\$ 59,333 34
53.....			798 05		
57.....		1,242 04			
61.....				25 12	
* 62-74.....		728,326 07			
78.....			989 25		
79.....			526 85		
89.....		60 36			
90-110.....					34,947 63
111.....				20,086 20	
112.....			2,756 05		
126.....			4,395 16		
136.....			574 33		
138.....			304 00		
175.....			1,175 55		
177.....				13,390 80	
178.....	63 55	4,927 86			
*179-225.....	89,365 28	875,333 05			
228.....	3,509 40				
*229-235.....		975,248 98			
*236-245.....	8,284 48	877,695 00			
257.....			5,135 53		
258.....		407 81			
260.....			29 01		
261.....			127 62		
262.....		233 66			
263.....					1,750 00
265.....				53 82	
266.....			201 48		
274.....			934 26		
275.....			1,306 04		
278.....			1,466 26		
279.....			68 00		
280.....			32 42		
284.....			1,980 00		
291.....			1,509 81		
293.....			2,232 85		
294-297.....					6,681 00
301.....		2,325 04			
302.....				1,922 28	
303.....			5,330 00		
316.....			148 72		
317.....			154 22		
*318.....		79,334 81			
326.....			702 63		
329.....					11,518 15
330.....			3,119 09		
331.....		347 79			
332.....			87 50		
333.....					16,100 00
334.....		5,400 00			
*335-345.....	57,371 22	433,586 42			
355.....			1,290 91		
356.....			5,244 71		
*370-375.....		378,535 92			
388.....			5,058 76		
392.....			84 64		
393.....			12 50		
394.....			104 45		
395.....			430 41		
396.....			500 00		
397.....			78 35		
411-412.....					3,171 00
413.....			1,050 33		
414.....			160 82		
415.....			116 82		
416.....			15 75		



## SCHEDULE "H"—Continued.

NUMBER OF VOUCHER.	River Diversion Construction	Main Channel Construction	Bridge Con- struction, Main Channel.	Bridge Con- struction, Joliet Project.	Controlling Works, Lockport.
434.....			\$ 2,181 24		
436.....			618 01		
438.....			2,596 22		
439.....			159 16		
459.....			1,591 27		
461.....			6,571 52		
462.....			1,799 87		
463.....			74 40		
465.....			200 00		
467.....			563 40		
468.....			898 65		
469.....			63 50		
470.....			381 37		
471.....			1,385 17		
474.....			5,876 68		
475.....					\$ 5,223 75
476.....			119 00		
485.....			1,348 73		
488.....			13 20		
489.....			155 40		
490.....			125 13		
491.....			100 00		
498.....			109 04		
494.....			1,097 98		
495.....			563 50		
496.....			3,040 72		
*497-499.....		\$1,173 258 43			
*500-505.....		592,089 29			
506-509.....		379 60			
530.....			2,460 19		
534.....			1,289 56		
535.....			2,452 28		
537-538.....					8,520 00
539.....					1,161 26
541.....			4,950 15		
542.....			3,788 47		
543.....	\$ 245 07				
563.....			3,973 23		
564.....			2,962 25		
565.....			2,845 68		
566.....			38 71		
567.....			28 91		
568.....			253 73		
569.....			426 05		
575.....			5,973 52		
576.....			575 99		
581.....		4,200 00			
582.....		397 00			
588.....			2,255 22		
590.....			1,723 19		
591.....			3,282 59		
593.....			5,907 84		
594.....			638 61		
607.....					231 23
610.....			1,905 00		
611.....			1,515 83		
612.....			2,011 54		
613.....			4,586 82		
614.....			42 43		
615.....			130 23		
622.....			250 87		
623.....			2,172 06		
634.....			159 90		
*644-660.....	39,330 16	794,848 05			
668.....		16 67			
669.....			3,159 33		
670.....			134 75		
672.....			5,762 14		
673.....			1,334 29		
674.....			656 30		
675.....			98 14		
676.....			487 42		
677.....			14 86		
678.....			1,260 18		
Totals.....	\$ 198,342 57	\$ 7,471,402 08	\$ 156,347 63	\$ 39,014 63	\$ 148,867 25

\* These vouchers are final and include all amounts shown on previous estimates.



179 68	633 90	4,334 76	\$ 4,348 64
2,460 77	1,270 50		
516 90			
4,000 00			
3,000 00			
1,294 74			
1,945 13			
2,255 92			
1,923 44			
736 23	5,050 20		
3,253 48	247 50		
749 75	2,783 45		
517 07			
88 95	1,103 75		
3,170 52			\$1,010 00
66 35			
164 16			
713 12			
2,066 45			
19 47			
435 83			
816 50			
783 07			
5,453 94			
577 08			
17,326 20			
234 92			
3,407 53			
27,000 00			
537 34			
4,468 79			
785 98			
44 08			
4,467 82			
537 95			
890 19			
3,547 43			
2,000 00			
1,985 70			
8,768 76			
764 14			
169 39			
84 54			
5,600 00			

NUMBER OF VOUCHER.	River Diversion Con- struction.	Bridge Con- struction, River Diversion.	Main Channel Con- struction.	Bridge Con- struction, Main Channel.	Joliet Project.	Bridge Con- struction, Joliet Project.	Chicago River Dredging, Docks, Etc.	Control- ling Works, Lockport.	Bridge Construc- tion, Chicago River.
440				\$ 538 82					
441				2,354 83					
442				5,264 00					
443				1,576 73					
444-445				4,245 52					
446				154 51					
447				50 00					
448				30,824 00					
449		\$ 351 12						\$ 4,998 00	
453				4,869 38					
455				1,776 25					
456				22,688 40					
457				798 05					
473				2,546 03					
474			\$ 547 44						
475				4,022 53					
477				2,436 87					
478				482 81					
479				7 00					
480				10 42					
481				4 89					
482				5,076 76					
483-484				229 94					
485			360 00						
486				2,536 19					
487				2,411 50					
488				752 55					
489				8,320 85					
490				815 95					
496				26,358 67					
497									
498		16,134 00		11,604 75					
501				2,317 25					
502				245 00					
517				490 00					
518				1,295 43					
519									
527									
529					\$ 932 67			3,491 25	
533		1,073 60		178 94					
536				1,885 30					
537			514 06						
539									
542							\$ 447 44		
543									
544				1,235 10					
545				2,087 23					
546				30 00					
548				62 49					



## SCHEDULE "I"—Continued.

NUMBER OF VOUCHER.	River Diversion Con- struction.	Bridge Construc- tion, River Diversion.	Main Channel Con- struction.	Bridge Construc- tion, Main Channel.	Joliet Project.	Bridge Construc- tion, Joliet Project.	Chicago River Dredging, Docking, Etc.	Control- ling Works, Lockport.	Bridge Construc- tion, Chicago River.
707.....				\$ 60 12					
708.....				308 59					
709.....				96 25					
710.....				1,034 88					
711.....				15,000 00					
712.....		\$10,440 06							
713.....				3,544 62					
714.....				1,881 02					
715.....				40 46					
716.....				732 16					
717.....						\$ 1,500 00			
718.....			\$ 568 40	716 41		1,312 50	\$ 400 00		
719.....					\$ 10,000 00				
720.....				117 04			2,610 10		
721.....				1,141 91					
722.....				285 20					
723.....									
724.....				8,994 00					
725.....				45,711 00					
726.....				302 94					
727.....				191 73					
728.....		3,238 10							
729.....				1,968 75					
730.....				8,994 00		1,292 25			
731.....				8,994 00					
732.....				10,285 91					
733.....				219 74					
734.....				1,850 31					
735.....				438 84					
736.....				130 00					
737.....				13 98					
738.....				117 00					
739.....				30 31					
740.....				3,128 63					
741.....			106,157 06						
742.....				30,951 83					
743.....				1,171 44					
744.....				1,076 34					
745.....				284 00					
746.....									
747.....									
748.....									
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805.....									
806.....									
807.....									
808.....									
809.....									
810.....									
811.....									
812.....									
Totals.....	\$ 40,125 18	\$ 46,392 63	\$552,837 36	\$551,836.71	\$ 43,754 63	\$ 4,014 75	\$ 8,754 80	\$ 19,969 35	\$ 12,006 67

## SCHEDULE "J"

*Vouchers Paid by Warrants Drawn Against the Tax Levy for 1898, Charged to Land Account, Transferred to Sundry Accounts, as per the following Schedule.*

NUMBER OF VOUCHER.	Dock and Land Improvements and Rental Account.	Taxes on Land, Will County.	Land Dam-ages.
125.....	\$ 1,500 00		
249.....		\$ 2,225 16	
284.....		2,147 71	
563.....	1,500 00		
614.....			\$ 12,000 00
633.....			20,000 00
<b>Totals.....</b>	<b>\$ 3,000 00</b>	<b>\$ 4,442 87</b>	<b>\$ 32,000 00</b>

## SCHEDULE "K"

*Voucher Paid by Warrant Drawn Against the Tax Levy for 1898, Charged to Law Department, Transferred to Land Damages Account, as per the following Schedule.*

NUMBER OF VOUCHER.	Land Damages.
771.....	\$ 200 00
<b>Total.....</b>	<b>\$ 200 00</b>

## SCHEDULE "L."

Vouchers Paid by Warrants Drawn Against the Tax Levy for 1899, Charged to Construction Account, Transferred to Sundry Accounts as per the following Schedule:

NUMBER OF VOUCHER.	Bridge Construction, River Diversion.	Main Channel Construction.	Bridge Construction, Main Channel.	Joliet Project.	Bridge Construction, Joliet Project.	Chicago River Dredging, Docking, Etc.	Controlling Works, Lockport.	Bridge Construction, Chicago River.
15.....		\$ 341,097 87	\$ 1,278 87					
16.....						\$ 2,194 50		
36.....			3,745 58					
38.....					\$ 1,402 63			
39.....					1,573 60			
40.....								
41.....	\$ 60 00		240 00					
43.....			647 64					
44.....				\$ 14 00				
45.....			85 40					
46.....			100 90					
47.....	107 87							
48.....			85 88					
49.....			312 21					
50.....			161 59					
51.....						3,278 68		
55.....			409 55					
56.....			12,832 99					
58.....			1,857 50					
60.....			7,572 00					
61.....			508 12					
63.....					1,233 75			
64.....							\$ 314 58	
65.....			101 98					
66.....			153 44					
67.....			4,587 51					
68.....			635 40					
69.....			304 87					
70.....			1,519 60					
71.....			478 30					
72.....				437 20				
73.....				68 70	548 98			
74.....								
75.....			596 51					
76.....			87 08					
77.....			8,276 00					
78.....								
79.....			228 25					
80.....			385 00					
81.....			600 00					
82.....			6,000 00					
83.....								
84.....								
85.....								
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100.....							1,680 88	15,686 67
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1,987 75	1,987 75	1,987 75	1,987 75	1,987 75	1,987 75
413 70	413 70	413 70	413 70	413 70	413 70
5,746 00	5,746 00	5,746 00	5,746 00	5,746 00	5,746 00
5,746 00	5,746 00	5,746 00	5,746 00	5,746 00	5,746 00
5,778 86	5,778 86	5,778 86	5,778 86	5,778 86	5,778 86
53 57	53 57	53 57	53 57	53 57	53 57
100 00	100 00	100 00	100 00	100 00	100 00
1,072 07	1,072 07	1,072 07	1,072 07	1,072 07	1,072 07
16 09	16 09	16 09	16 09	16 09	16 09
185 05	185 05	185 05	185 05	185 05	185 05
14 00	14 00	14 00	14 00	14 00	14 00
20,416 00	20,416 00	20,416 00	20,416 00	20,416 00	20,416 00
114 39	114 39	114 39	114 39	114 39	114 39
144 35	144 35	144 35	144 35	144 35	144 35
23 36	23 36	23 36	23 36	23 36	23 36
30 07	30 07	30 07	30 07	30 07	30 07
704 59	704 59	704 59	704 59	704 59	704 59
2,065 82	2,065 82	2,065 82	2,065 82	2,065 82	2,065 82
1,191 84	1,191 84	1,191 84	1,191 84	1,191 84	1,191 84
130 77	130 77	130 77	130 77	130 77	130 77
449 80	449 80	449 80	449 80	449 80	449 80
1,547 00	1,547 00	1,547 00	1,547 00	1,547 00	1,547 00
104 49	104 49	104 49	104 49	104 49	104 49
2,358 93	2,358 93	2,358 93	2,358 93	2,358 93	2,358 93
72 26	72 26	72 26	72 26	72 26	72 26
683 05	683 05	683 05	683 05	683 05	683 05
166 01	166 01	166 01	166 01	166 01	166 01
84 05	84 05	84 05	84 05	84 05	84 05
296 09	296 09	296 09	296 09	296 09	296 09
515 90	515 90	515 90	515 90	515 90	515 90
334 06	334 06	334 06	334 06	334 06	334 06
23 45	23 45	23 45	23 45	23 45	23 45
68 12	68 12	68 12	68 12	68 12	68 12
79 05	79 05	79 05	79 05	79 05	79 05
1,618 75	1,618 75	1,618 75	1,618 75	1,618 75	1,618 75
280 90	280 90	280 90	280 90	280 90	280 90
6,572 40	6,572 40	6,572 40	6,572 40	6,572 40	6,572 40
231 90	231 90	231 90	231 90	231 90	231 90
100 00	100 00	100 00	100 00	100 00	100 00
362 00	362 00	362 00	362 00	362 00	362 00
116 00	116 00	116 00	116 00	116 00	116 00
169 30	169 30	169 30	169 30	169 30	169 30
48 50	48 50	48 50	48 50	48 50	48 50
132 50	132 50	132 50	132 50	132 50	132 50
2,440 78	2,440 78	2,440 78	2,440 78	2,440 78	2,440 78
2,000 00	2,000 00	2,000 00	2,000 00	2,000 00	2,000 00
6,967 01	6,967 01	6,967 01	6,967 01	6,967 01	6,967 01



December 11,

—7561—

[ 1901

[illegible]

## SCHEDULE "I."—Continued.

NUMBER OF VOUCHER.	Bridge Construction, River Diversion.	Main Channel Construction.	Bridge Construction, Main Channel.	Joliet Project.	Bridge Construction, Joliet Project.	Chicago River Dredging, Docking, Etc.	Control-ling Works, Lockport.	Bridge Construction, Chicago River.
561.....			\$ 320 13					\$ 9,683 16
562.....				\$ 107 00				
563.....				14 00				
564.....				650 37				
565.....				238 20				
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[illegible]

## SCHEDULE "L"—Continued.

NUMBER OF VOUCHER.	Bridge Construction, River Diversion.	Main Channel Construction.	Bridge Construction, Main Channel.	Joliet Project.	Bridge Construction, Joliet Project.	Chicago River Dredging, Docking, Etc.	Controlling Works, Lockport.	Bridge Construction, Chicago River.
897			\$1,440 81					
898			215 00					\$4,748 41
899								
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## SCHEDULE "L"—Continued.

NUMBER OF VOUCHER.	Bridge Construction, River Diversion.	Main Channel Construction.	Bridge Construction, Main Channel.	Joliet Project.	Bridge Construction, Joliet Project.	Chicago River Dredging, Docking, Etc.	Controlling Works, Lockport.	Bridge Construction, Chicago River.
983		\$ 133 86						
984		118 18						
985		35 00						
986		35 38						
987		19 05						
988		161 95						
989				\$ 351 00			\$ 42 85	
990				630 00				
991								
992					\$ 53 36			
993					603 25			
1001						\$ 7,972 56		
1002						4,000 00		
1003						2,552 98		
1004			\$12,351 83					
1005			2,681 98					
1006					425 78			
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## SCHEDULE "M"

*Vouchers Paid by Warrants Drawn Against the Tax Levy for 1899, Charged to Law Department, Transferred to Sundry Accounts, as per the following Schedule.*

NUMBER OF VOUCHER.	Dock and Land Improvements and Rental Account.	Taxes on Land, Will County.	Land Damaged.
100.....			\$ 433 10
157.....		\$ 3,168 40	
158.....	\$ 1,500 00		
382.....	58 34		
877.....	1,500 00		
Totals.....	\$ 3,058 34	\$ 3,168 40	\$ 433 10

## SCHEDULE "N"

*Voucher Paid by Warrant Drawn Against the Tax Levy for 1899, Charged to General Account, Transferred to Police Department, as per the following Schedule:*

NUMBER OF VOUCHER.	Police Department.
673.....	\$ 55 00
Total.....	\$ 55 00

## SCHEDULE "O."

Vouchers Paid by Warrants Drawn Against the Tax Levy for 1900, Charged to Construction Account, Transferred to Sundry Accounts, as per the following Schedule:

NUMBER OF VOUCHER.	Bridge Construction, River Diversion.	Main Channel Construction.	Bridge Construction, Main Channel.	Joliet Project.	Bridge Construction, Joliet Project.	Chicago River Dredging, Docking, Etc.	Control-ling Works, Lockport.	Bridge Construction, Chicago River.
2.....						\$ 5,739 03		
4-6.....						8,720 00		
7.....				\$ 3,286 91	\$ 18 46			
8.....		\$ 126 88		2,865 25				
10.....								
12.....								
13.....								
14.....		2,269 73	\$ 1,107 68			2,120 46		\$ 588 09
15.....			232 33					
16.....								
17.....		230 82	202 99					
18.....			5,448 31					
19.....			1,057 93					
20.....			1,471 62					
21.....			289 58					
22.....		21 60						
23.....			215 77					
24.....		13 95	46 40					
25.....			57 40					
26.....		249 21	759 10					
27.....								
28.....		36 85						
29.....		30 54						
30.....								
31.....								
32.....								
33.....								
34.....								
35.....								
36.....								
37.....		16 00	5,572 98			94 00		
38.....		27 02				18 30		
39.....		83 50				32 00		
40.....		12 13				57 20		
41.....		112 00				43 00		
42.....								
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December 11,]

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[1901

SCHEDULE "P."

*Voucher Paid by Warrant Drawn Against the Tax Levy for 1900, Charged Against Law Department, Transferred to Land Damages Account, as per the following Schedule:*

NUMBER OF VOUCHER.	Land Damages.
217.....	\$ 1,000 00
Total.....	\$ 1,000 00



## SCHEDULE "Q."

Re-classification of Sundry Receipts Credited to Construction Account from the Beginning of Work to December 31, 1900.

DATE.	ACCOUNT.	Chicago River Dredging, Docking, Etc.	River Diversion Construction.	Bridge Construction River Diversion.	Main Channel Construction.	Bridge Construction Main Channel.	Joliet Project.	Bridge construction Joliet Project.	Totals.
1894									
March 10.	Atchison, Topeka and Santa Fe Railroad.			\$ 41 60					\$ 41 60
Dec. 31.	Force Account, Pay Envelopes.		\$ 418 78						418 78
1895							\$ 4 12		4 12
Aug. 31.	Force Account, Pay Envelopes.								
1896									
May 1.	City of Chicago.	\$ 400 00							400 00
July 14.	Atchison, Topeka and Santa Fe Railroad.			13,769 25					13,769 25
July 31.	Reidmeyer & Neu.						14 72		14 72
July 31.	Werden Buck.				\$ 42 70	\$ 75 00			117 70
Aug. 2.	L. R. Pelling.					50 00			50 00
Aug. 14.	W. T. Velbourn.								
Sept. 12.	Block-Pollock Iron Company.					2,110 94			2,110 94
1900									
Jan. 22.	S. Nathan.							\$ 141 98	141 98
Feb. 6.	Fitz-Simons & Connell Company.					177 00			177 00
Feb. 15.	Block-Pollock Iron Company.					628 30			628 30
March 5.	Meacham & Wright.						88 00		88 00
March 12.	Block-Pollock Iron Company.					111 51			111 51
April 7.	Meacham & Wright.			237 68					237 68
June 22.	Atchison, Topeka and Santa Fe Railroad.			2 34					2 34
July 6.	J. G. Wagner Company.							3,625 07	3,625 07
July 10.	Chicago, Rock Island and Pacific Railway Company.							436 55	436 55
July 30.	Garden City Sand Company.				73 97				73 97
July 30.	Meacham & Wright.				100 00				100 00
July 30.	Phos. Moulding Company.				212 95				212 95
Aug. 18.	Phos. Moulding Company.				30 00				30 00
Sept. 14.	Phos. Moulding Company.	150 00							150 00
Oct. 1.	Werden Buck.						3 00		3 00
Oct. 10.	Illinois Steel Company.						34 46		34 46
Dec. 11.	Toledo Bridge Company.	750 30				86 41			836 71
	Totals.	\$ 1,300 30	\$ 418 78	\$13,810 85	\$ 749 64	\$ 3,239 16	\$ 149 30	\$ 4,203 60	\$ 23,880 68

## SCHEDULE "R."

*Re-classification of Sundry Receipts Credited to General Account from Organization of the District to December 31, 1900.*

Date.	ACCOUNT.	Dock and Land Improvements and Rental Account.
July 27, 1893.....	Western Stone Company.....	\$ 20 00
June 27, 1893.....	McArthur Brothers.....	150 00
Oct. 31, 1893.....	Western Dredging and Improvement Company.....	150 00
Dec. 7, 1893.....	Heldmaier & Neu.....	120 00
Dec. 18, 1893.....	McArthur Brothers.....	150 00
March 21, 1894.....	Western Dredging and Improvement Company.....	150 00
April 2, 1894.....	Heldmaier & Neu.....	120 00
June 7, 1894.....	McArthur Brothers.....	150 00
Sept. 15, 1894.....	Heldmaier & Neu.....	120 00
Sept. 15, 1894.....	Western Dredging and Improvement Company.....	150 00
Nov. 12, 1894.....	McArthur Brothers.....	150 00
May 31, 1895.....	Western Dredging and Improvement Company.....	150 00
May 31, 1895.....	McArthur Brothers.....	150 00
July 31, 1895.....	Heldmaier & Neu.....	95 00
Nov. 30, 1895.....	Western Dredging and Improvement Company.....	150 00
Nov. 30, 1895.....	McArthur Brothers.....	150 00
Nov. 30, 1895.....	Heldmaier & Neu.....	107 50
May 31, 1896.....	McArthur Brothers.....	150 00
May 31, 1896.....	Western Dredging and Improvement Company.....	150 00
June 30, 1896.....	Heldmaier & Neu.....	107 50
Dec. 31, 1896.....	McArthur Brothers.....	150 00
Dec. 31, 1896.....	Heldmaier & Neu.....	107 50
Feb. 19, 1897.....	Western Dredging and Improvement Company.....	150 00
March 24, 1898.....	Western Dredging and Improvement Company.....	450 00
Feb. 1, 1899.....	Western Dredging and Improvement Company.....	150 00
	Total.....	\$ 3,647 50

## SCHEDULE "S."

Re-classification of Sundry Receipts Credited to Land Account from Organization of District to December 31, 1900.

DATE.	ACCOUNT.	Taxes on Land, Cook County.	Dock and Land Improvements and Rental Account.	Taxes on Land, Will County.	Police Department.	Totals.
Sept. 16, 1893	J. L. Henry	\$ 38 78	\$ 60 00			\$ 98 78
Nov. 28, 1897	Geo. Nagel		50 00			90 00
Mar. 7, 1898	Geo. Nagel			\$ 3 06		3 06
Sept. 16, 1898	Geo. T. Rugg			6 83		6 83
Sept. 16, 1898	R. E. Schroeder		45 00			45 00
Oct. 10, 1898	Geo. Nagel		30 00			30 00
Nov. 26, 1898	Geo. Nagel		22 80			22 80
Jan. 9, 1899	John Dollesc, Jr.		30 00			30 00
Mar. 3, 1899	Frank Brokowski				\$ 100 00	100 00
Mar. 13, 1899	Timothy Carroll		15 00			15 00
June 2, 1899	Herman Fandry		112 50			112 50
July 26, 1899	Geo. F. and Wm. Keller		112 50			112 50
Oct. 19, 1899	Geo. F. and Wm. Keller		30 00			30 00
Nov. 10, 1899	Frank Brokowski		90 00			90 00
Jan. 26, 1900	Geo. Nagel		52 50			52 50
Apr. 23, 1900	Timothy Carroll		150 00			150 00
Apr. 23, 1900	Modesto Lensi		105 00			105 00
Apr. 23, 1900	Geo. Nagel		35 00			35 00
May 19, 1900	Leo Goltz		35 00			35 00
May 19, 1900	Jos. Bumberg		70 00			70 00
May 23, 1900	Frank Brokowski		70 00			70 00
May 23, 1900	Louis Leonard		24 50			24 50
June 11, 1900	Herman Fandry		100 00			100 00
Sept. 6, 1900	Lemont Limestone Company		100 00			100 00
Dec. 7, 1900	Lemont Limestone Company		20 00			20 00
Dec. 31, 1900	Western Stone Company					
Totals..		\$ 38 78	\$ 1,339 80	\$ 9 89	\$ 100 00	\$ 1,488 47

## SCHEDULE "T"

*Uncollected Taxes Charged to Tax Account, Transferred to Delinquent Tax Account, as per the following Schedule:*

YEAR.	Real Estate.	Personal Property.	Railroads.	Total.
1890.....	\$ 2,450 38	\$ 8,715 83	\$ 123 41	\$ 11,289 62
1891.....	2,583 54	9,918 80		12,502 34
1892.....	3,807 00	12,883 13		16,690 13
1893.....	4,525 28	23,677 89	13,226 00	41,429 17
1894.....	4,485 97	20,987 74	72 76	25,546 47
1895.....	21,064 19	58,062 46	272 80	79,399 45
1896.....	37,057 66	70,705 20	212 45	107,975 31
1897.....	56,085 81	88,375 43	756 95	145,218 19
1898.....	89,189 73	58,736 54	160 19	148,086 46
1899.....	57,215 54	88,459 55	2,213 01	147,888 10
Totals.....	\$ 278,475 10	\$ 440,502 57	\$17,087 57	\$736,015 24

## SCHEDULE "U"

*Receipts from County Treasurer Account Delinquent Taxes, Credited to Tax Account, Transferred to Delinquent Tax Account, as per the following Schedule:*

DATE.	Amount.
November 30, 1892.....	\$ 237 25
November 30, 1894.....	208 76
December 5, 1895.....	1,088 63
December 22, 1896.....	150 63
December 31, 1897.....	309 90
December 3, 1898.....	5,244 18
December 27, 1899.....	2,721 91
December 31, 1900.....	2,435 41
Total.....	\$12,396 67

## SCHEDULE "V."

Summary of re-classification of Unconstruction Vouchers from the beginning of work to December 31, 1900, as per Schedules A., F., G., H., I., L. and O.

VOUCHERS.	Chicago River, Dredging, Docking, Etc.	Bridge Construction, Chicago River.	River Diversion, Construction.	Bridge Construction, River Diversion.	Main Channel Construction.	Bridge Construction, Main Channel.	Controlling Works, Lockport.	Bridge Construction, Controlling Works.	Bridge Construction, Joliet Project.	Joliet Project.	Illinois and Michigan Canal Improvement at Bridgeport.	Totals.
Regular.....	\$861,032 40	\$238,542 13	\$ 568,110 21	\$ 66,181 75	\$ 738,306 36	\$ 590,832 65	\$ 38,251 05	\$ 7,824 50	\$143,551 32	\$1,066,566 34	\$ 76,809 17	\$ 4,481,507 88
Tax Levy, 1895.....	.....	.....	11,082 90	.....	4,359 51	9,329 72	1,622 25	.....	.....	.....	.....	28,404 38
Tax Levy, 1896.....	.....	.....	182,924 30	.....	8,555,510 97	35,271 86	62,011 20	.....	2,969 99	.....	.....	8,838,628 32
Tax Levy, 1897.....	.....	.....	198,342 57	.....	7,471,402 08	156,347 63	148,867 35	.....	39,014 63	.....	.....	8,013,964 26
Tax Levy, 1898.....	8,754 80	12,006 67	40,135 18	46,392 63	552,837 38	551,836 71	19,699 25	.....	4,014 75	43,754 63	.....	1,280,082 00
Tax Levy, 1899.....	97,645 96	110,931 59	.....	43,580 75	1,151,120 20	461,458 04	32,011 94	.....	64,668 06	29,687 52	.....	1,991,104 06
Tax Levy, 1900.....	29,610 24	23,494 17	.....	47 66	9,643 72	42,655 62	756 09	.....	19,577 81	58,126 77	.....	158,841 96
Totals.....	\$997,648 40	\$440,564 56	\$1,000,605 16	\$156,262 79	\$16,483,180 22	\$1,847,472 13	\$308,209 13	\$ 7,824 50	\$273,816 56	\$1,263,115 26	\$ 76,809 17	\$24,790,542 88

## SCHEDULE "W."

Summary of Vouchers Issued from the Beginning of Work to December 31, 1900, Charged to Maintenance, Law Department and General Accounts, Transferred to Sundry Accounts as per Schedules B, C, D, E, J, K, M, N, and P.

SCHEDULE	U. S.	Account Credited.	Manner of Payment.	ACCOUNTS DEBITED.										Totals.
				Right of Way.	Land Damages.	Dock and Land Improve-ments and Rep-ital Acct.	Personal Injuries Account.	Taxes on Land, Will County.	Taxes on Land, Cook County.	Taxes on Land, Du Page County.	Tele- phone Line.	Bridge- port Pumping Works.	Police Depart-ment.	
B	.....	Maintenance	Warrants on Treasurer.	\$55,816 00	\$27,349 80	\$ 75 00	\$ 1,288 45					\$75,181 20		\$ 75,181 20
C	.....	Law Department.	Warrants on Treasurer.											
D	.....	Land Account.	Warrants on Treasurer.			3,116 68		4,008 20	\$ 2,995 23	\$ 1 77				84,541 50
E	.....	General Account.	Warrants on Treasurer.	853 45			392 15				\$ 7,943 66			10,121 97
J	.....	Land Account.	Tax Levy, 1898		32,000 00	3,000 00		4,442 87						9,289 25
K	.....	Land Account.	Tax Levy, 1898		200 00									30,442 87
M	.....	Law Department.	Tax Levy, 1899		433 10	3,058 34		3,168 40						200 00
N	.....	General Account.	Tax Levy, 1899											6,659 84
P	.....	Law Department.	Tax Levy, 1900		1,000 00								\$ 55 00	55 00
			Totals	\$56,709 45	\$60,982 90	\$ 9,250 02	\$ 1,686 60	\$11,026 81	\$ 2,995 23	\$ 1 77	\$ 7,943 66	\$75,181 20	\$ 55 00	\$223,491 64

# EXHIBIT IV.

## NET RECEIPTS AND DISBURSEMENTS FROM ORGANIZATION TO SEPTEMBER 30, 1901.

### Receipts.

Taxes collected.....	\$23,592,497 34
Bond Account, 1st issue.....	1,900,000 00
Bond Account, 2d issue.....	1,950,000 00
Bond Account, 3d issue.....	1,950,000 00
Bond Account, 4th issue.....	2,800,000 00
Bond Account, 5th issue.....	600,000 00
Bond Account, 6th issue.....	640,000 00
Bond Account, 7th issue.....	200,000 00
Bond Account, 8th issue.....	190,000 00
Bond Account, 9th issue.....	950,000 00
Bond Account, 10th issue.....	2,375,000 00
Bond Account, 11th issue.....	242,218 51
Interest on Deposits.....	10,963 39
Tax Levy, 1896 (Warrants outstanding).....	10,963 39

Total.....

\$37,650,609 24

(a) The sum of \$6,470.97, received from "Land Rentals" to date, is credited to this account.  
 (b) The railroad companies insisted upon the insertion of anchor rods in the masonry of the Campbell Avenue (eight-track) Bridge. This requirement is regarded by the Chief Engineer as being in excess of contract obligation and the cost is charged up against the railroads in interest and will be treated as a partial offset to claims of said railroads against the District.  
 (c) These items consist of moneys paid out by the District on account of work on the sections for which the parties named held contracts and will be deducted from amounts found due said contractors respectively.

### Disbursements.

Right of way.....	\$ 3,347,404 89
River Diversion Construction.....	1,000,186 38
Bridge Construction, River Diversion.....	142,391 94
Main Channel Construction.....	16,495,249 12
Bridge Construction, Main Channel.....	1,910,080 52
Controlling Works, Lockport.....	311,484 02
Bridge Construction, Controlling Works.....	7,873 35
Joliet Project.....	1,254,504 60
Bridge Construction, Joliet Project.....	289,612 96
Chicago River Dredging, Docking, etc.....	1,100,293 07
Bridge Construction, Chicago River.....	698,707 13
Illinois and Michigan Canal Improvement at Bridgeport.....	77,016 08
Capitalization and Maintenance of Bridges.....	396,514 15
Engineering Department.....	1,587,290 52
Clerical Department.....	122,132 90
Law Department.....	436,350 94
Treasury Department.....	22,197 71
Police Department.....	309,159 22
General Account.....	614,688 33
Maintenance Account.....	113,404 30
Interest on Bonds.....	3,819,713 26
Interest on Tax Warrants.....	468,169 17
(a) Dock and Land Improvements and 1 Rental Account.....	7,238 98
Land Damages.....	61,132 90
Personal Injuries Account.....	1,685 60
Bridgeport, Pumping Works.....	90,890 93
Special Commissioners, Chicago Drainage Canal.....	33,075 97
Taxes on Land, Cook County.....	2,956 45
Taxes on Land, Du Page County.....	1 77
Taxes on Land, Will County.....	14,203 48
Telephone Line.....	10,461 96
(b) Pittsburgh, Cincinnati, Chicago and St. Louis Railway Co.....	1,133 25
(b) Chicago Junction Railway Company.....	566 63
(b) Chicago Terminal Transfer Railroad Company.....	566 62
(c) Weir, McKechney & Co.....	23,118 14
(c) Streeter & Kenefick.....	5,020 02
(c) E. D. Smith & Co.....	2,400 00
(c) Heldmaier & Neu.....	290 84
(c) Scherzer Rolling Lift Bridge Company.....	4,719 82
(c) Smith & Eastman.....	4,507 75
Total.....	\$33,686,684 67
Balance in hands of Treasurer and Officers.....	\$ 1,048,702 90
Less unpaid Warrants.....	94,778 33
Total.....	\$37,650,609 24

December 11,]

—7589—

[1901]

**ADJOURNMENT.**

On motion of Mr. Jones, seconded by Mr. Webb, the Board adjourned.

*A. R. Porter.*  
CLERK



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

DECEMBER 18 AND 27, 1901.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees of  
the Sanitary District of Chicago.*

**REGULAR MEETING.**

The Five Hundred and Fiftieth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, December 18, 1901, at 2 o'clock P. M.

The President, Mr. Smyth, took the chair, and the roll being called there were then

*Present*—Messrs. Baker, Braden, Carter, Legner, Smyth and Webb—Six.

*Absent*—Messrs. Cloldt, Jones and Wenter—Three.

Mr. Cloldt arriving subsequently.

President Smyth then called the Board to order.

**VOUCHERS.**

The Clerk presented the following vouchers:

**PAY ROLLS.**

Engineering Department (Chief Engineer's, December, 1901)	\$ 7,746 88
Clerical Department (Clerk's, December, 1901)	958 38
Law Department (Attorney's, December, 1901)	2,141 65
Treasury Department (Treasurer's, December, 1901)	375 00
General Account (General, December, 1901)	205 00
General Account (Trustees', December, 1901)	2,338 84
Police Department (Marshal's, December, 1901)	1,738 28
Maintenance Account (Controlling Works, December, 1901)	550 00
	\$ 16,048 48

## CONSTRUCTION ACCOUNT.

Lydon & Drews Company (Canal Street Bridge, December 16, 1901)....	\$ 1,257 45
Lydon & Drews Company (Main Street Bridge, December 15, 1901).....	4,787 07
Lydon & Drews Company (extra work, Main Street Bridge, December 10, 1901).....	1,201 71
Page & Shnabie (Ashland Avenue Bridge, December 15, 1901) ...	1,312 50
Page & Shnabie (extra work, Ashland Avenue Bridge, December 15, 1901).....	668 17
Jackson & Corbett Company (Randolph Street Bridge, December 16, 1901).....	1,181 25
S. J. Stebbins Company (extra work, Main Street Bridge, December 5, 1901).....	47 69
	<u>\$ 10,250 85</u>

## CLERICAL DEPARTMENT.

Chicago Printing and Embossing Company (letter heads, etc).....	\$ 27 35
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## LAW DEPARTMENT.

*Walker & Payne (special counsel, Smith & Eastman vs. District)....	\$ 4,001 21
Chas. G. Sachse (professional services, Smith & Eastman vs. District)..	15 00
Nicholas Re. M. D. (witness fees, Harlev vs. District).....	50 00
Louis Re (witness fees, Harlev vs. District).....	25 00
John Francis (witness fees, Harlev vs. District).....	25 00
Paul Engler (witness fees, Harlev vs. District).....	20 00
F. W. M. Hammerschmidt (witness fees, Harlev vs. District).....	175 00
C. E. Churchville (witness fees, Harlev vs. District).....	80 00
Alfred Wenberg (witness fees, Harlev vs. District).....	125 00
J. Doogan (witness fees, Harlev vs. District).....	30 00
Robert Sherman (witness fees, Harlev vs. District).....	150 00
Jacob Bumber (witness fees, Harlev vs. District).....	20 00
E. Keller (witness fees, Harlev vs. District).....	50 00
Samuel Norton (witness fees, Harlev vs. District).....	20 00
William Alert (witness fees, Harlev vs. District).....	90 00
C. Hacker (witness fees, Harlev vs. District).....	30 00
A. Rynd (witness fees, Harlev vs. District).....	50 00
Chas. J. Young (witness fees, Harlev vs. District).....	125 00
E. G. Young (witness fees, Harlev vs. District).....	100 00
G. P. Adams (witness fees, Harlev vs. District).....	90 00
Geo. Hertzog (witness fees, Harlev vs. District).....	50 00
Adam Groth (witness fees, Harlev vs. District).....	350 00
Jacob Salfsburg (witness fees, Harlev vs. District).....	250 00
Martin Johnson (witness fees, Harlev vs. District).....	300 00
Bartley J. Campbell (witness fees, Harlev vs. District).....	300 00
David Welner (witness fees, Harlev vs. District).....	300 00
Frank Sprague (witness fees, Harlev vs. District).....	250 00
James Todd, Attorney (expense).....	104 90
	<u>\$ 7,126 11</u>

## POLICE DEPARTMENT.

Bridget Lambert (laundry, police station).....	\$ 12 00
J. F. Tenney Company (police badges).....	12 50
John Larney (coal, police station).....	43 00
	<u>\$ 66 50</u>

## GENERAL ACCOUNT.

Peabody Coal Company (coal, steamer Juliet).....	\$ 10 50
E. E. Irons, St. Louis (expense, streams examination).....	59 59
	<u>\$ 70 09</u>

## TELEPHONE LINE.

The Trenton Iron Company (telephone wire).....	\$ 460 91
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Grand total..... \$ 34,145 29

\* Motion as to approval and payment of same lost.

Mr. Carter, seconded by Mr. Baker, moved that the vouchers, as read and shown above, be approved and ordered paid.

The roll being called, the vote stood as follows:

*Yeas*—Messrs. Baker, Braden (except as to Law Department vouchers in favor of Walker & Payne, Special Counsel, for \$4,001.21, and Charles G. Sachse, professional services, for \$15.00, in the suit of Smith & Eastman vs. The Sanitary District; and the following Law Department vouchers for witness fees in the suit of Alfred Harlev vs. The Sanitary District: Nicholas Re, M. D., \$50.00; Louis Re, \$25.00; John Francis, \$25.00; Paul Engler, \$20.00; F. W. M. Hammerschmidt, \$175.00; C. E. Churchville, \$30.00; Alfred Wenberg, \$125.00; J. Dugan, \$30.00; Robert Sherman, \$150.00; Jacob Bumber, \$20.00; E. Keller, \$50.00; Samuel Norton, \$20.00; William Alert, \$90.00; C. Hacker, \$30.00; A. Rynd, \$50.00; Chas. J. Young, \$125.00; E. G. Young, \$100.00; G. P. Adams, \$90.00; Geo. Hertzog, \$50.00; Adam Groth, \$350.00; Jacob Saltsburg, \$250.00; Martin Johnson, \$300.00; Bartley J. Campbell, \$300.00; David Weiner, \$300.00; Frank Sprague, \$250.00, on all of which Mr. Braden, voted nay); Carter (except as to Law Department voucher in favor of Walker & Payne, Special Counsel in the suit of Smith & Eastman vs. The Sanitary District, for \$4,001.21, on which Mr. Carter voted nay); Cloldt, Legner, Smyth (except as to Law Department voucher in favor of Walker & Payne, Special Counsel in the suit of Smith & Eastman vs. The Sanitary District, for \$4,001.21, on which Mr. Smyth voted nay); and Webb—Seven (except as above stated).

*Nays*—None (except as above stated).

Upon this result the Chair declared the motion carried (except the voucher of Walker & Payne, Special Counsel in the suit of Smith & Eastman vs. The Sanitary District, for \$4,001.21, as to which the Chair declared the motion lost).

#### MONTHLY REPORT OF THE LAW DEPARTMENT.

The Clerk presented the report of the Law Department for the month of November, 1901, which, by unanimous consent, was ordered printed and placed on filed.

The following is the report:

CHICAGO, Dec. 17, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I submit herewith the report of the Law Department for the month of November, 1901.

The total amount paid out by this Department during the month is as follows:

Attorney's roll.....	\$ 2,125 65
Special Counsel .....	4,895 88
Expense.....	649 98
Special Service.....	1,464 40
Witness Fees.....	465 79
Total. ....	<u>\$ 9,602 65</u>

The following suits were begun during the month:

Edwin J. Zimmer, etc., vs. The Sanitary District of Chicago, General No. 218686, in the Superior Court of Cook County. This is a suit in Case for \$3,000.00.

The Sanitary District of Chicago vs. Thomas T. Johntson, General No. 218843, in the Superior Court of Cook County. This is a replevin suit for \$100.00 for certain letter books belonging to the District.

John Angus and George A. Gindele, for the use of William Hill, Receiver, vs. The Sanitary District of Chicago, General No. 228274, in the Circuit Court of Cook County. This is an assumpsit suit, presumably for extras on Section "E," for \$50,000.00.

In the case of Smith & Eastman vs. The Sanitary District of Chicago, General No. 217981, in the Superior Court of Cook County, Judge Chytrons, after a protracted trial, instructed the jury to find for the defendant. The plaintiffs will pray an appeal to the Appellate Court.

In the case of James Ray vs. The Sanitary District of Chicago, in the Circuit Court of Will County, a motion for a new trial was made by the plaintiff and granted by the Court.

In the case of Walter Farraday, Adm., etc., vs. The Sanitary District of Chicago, et al., in the Circuit Court of Cook County, a verdict was rendered finding the defendant guilty and assessing the plaintiff's damages at one dollar. A motion for a new trial was entered and overruled.

In addition to the above, the prepa-

ration for trial of certain pending suits, the drafting of leases, pleadings and opinions and the routine work of the District have occupied the time of the Department.

Respectfully submitted,

JAMES TODD,  
*Attorney.*

**COMMUNICATION FROM DUNLAP SMITH & CO., OFFERING TO LEASE FLOOR SPACE TO THE DISTRICT FOR OFFICE PURPOSES.**

Under the head of unfinished business the President presented a communication from Dunlap Smith & Co., offering to lease to the District, for office purposes, 6140 square feet of floor space, on the eleventh floor of the new National Life Building, now in process of construction at 157 to 163 La Salle Street, for a period of not less than three years, at an annual rental of \$7,500.00.

In connection with the above, the Chair stated that there was also a proposition from the Chicago Tribune Company to lease floor space to the District in the new Tribune Building, at an annual rental of \$1.20 per square foot.

Mr. Carter, seconded by Mr. Baker, moved that the communication and all other propositions for leasing new quarters, be referred to the Committee on Finance for further consideration.

The motion prevailed unanimously and it was so ordered.

**REPORT AUTHORIZING THE CLERK TO ACCEPT CERTAIN CHECK FROM THE FITZ-SIMONS & CONNELL COMPANY IN PAYMENT FOR SECOND-HAND PILES AND TIMBERS.**

Mr. Braden, Chairman of the Committee on Engineering, presented a report from the Committee, as follows:

CHICAGO, December 16th, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Engineering herewith reports that the Clerk of the District has received a check from Fitz-Simons & Connell Co. for five hundred and four dollars and five cents (\$504.05),

being the proceeds of sale of certain second-hand piles and timbers to said Fitz-Simons & Connell Co., said piles and timbers being of no further use to this District.

Your Committee, having carefully considered the matter, recommends that the Clerk of the District be authorized to accept said check for \$504.05 and that the action of the Committee in authorizing the sale of said piles and timbers be approved.

Respectfully submitted,

(Signed) Jos. C. BRADEN,  
*Chairman.*

Z. R. CARTER,

WM. H. BAKER,

• WM. LEGNER,

THOMAS A. SMYTH,

*Committee on Engineering.*

(Three enclosures.)

On motion of Mr. Braden, seconded by Mr. Legner, the report was adopted and the recommendations contained therein concurred in.

Yeas—Messrs. Baker, Braden, Carter, Legner, Smyth and Webb—Six.

Nays—None.

**REPORT IN REFERENCE TO SETTLEMENT OF SUIT OF THE SANITARY DISTRICT VS. LAZARUS SILVERMAN, ET AL.**

Mr. Legner, Chairman of the Committee on Judiciary, presented a report from the Committee, as follows:

CHICAGO, December 18, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Judiciary reports to your Honorable Body that it is informed by the Attorney for the District that a proposition has been made by the attorneys for Lazarus Silverman and his trustee in bankruptcy proceedings against Silverman to settle the suit brought by the District against Silverman et al., for the purpose of reforming a deed to certain property formerly owned by Silverman, the title to which the District, through several conveyances, acquired

The amount of land in controversy is about thirty-five acres. The attorneys for Silverman and his trustee offer to settle this matter upon the District paying the sum of \$300.00.

Your Committee is of the opinion that it is advisable to accept the proposition, as it will end further litigation and will perfect the title of the District to the real estate in controversy.

Your Committee, therefore, recommends that there be paid to Floyd E. Jennison, trustee for Lazarus Silverman, the sum of \$300.00, upon said trustee executing and delivering to the District a quit-claim deed to the property in controversy in said suit, said deed to be approved by the Attorney for the District and said sum of \$300.00 to be paid on the voucher of the Attorney, and upon the attorneys for said Silverman and his trustee consenting to a decree in favor of the District in said suit.

Respectfully submitted,

(Signed) WM. LEGNER,  
*Chairman.*  
FRANK X. CLOIDT,  
J. C. BRADEN.  
Z. C. CARTER,  
THOMAS J. WEBB,  
THOMAS A. SMYTH,  
*Committee on Judiciary.*

Mr. Legner, seconded by Mr. Baker, moved that the report be adopted and the recommendations contained therein concurred in.

The motion prevailed unanimously, and it was so ordered.

REPORT IN REFERENCE TO ADDITIONAL COMPENSATION TO BE PAID P. C. HALEY, ATTORNEY FOR THE SANITARY DISTRICT IN WILL COUNTY, ILL.

Mr. Legner, Chairman of the Committee on Judiciary, presented a report from the Committee, as follows:

CHICAGO, December 18, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Ju-

diary desires herewith to make report that the Committee has had under consideration the matter of according additional compensation to Mr. P. C. Haley, Attorney for the District in Will County, Illinois. The Committee desires to inform your Honorable Body that by reason of the increased amount of litigation the District has had to encounter and the magnitude of the interests involved therein, during the past year, and the added duties and responsibility of said Attorney consequent thereon, has been out of all proportion to the salary paid said Attorney for services rendered. The Committee, therefore, desires to advise the Board of Trustees that it is of the opinion that additional compensation should be made to said P. C. Haley in consideration of the premises, and after mature deliberation has agreed that the sum of one thousand dollars (\$1,000.00) additional to the salary at present paid would be a fair and just compensation to award said Attorney for services rendered during the current year.

The Committee, therefore, recommends that a voucher be drawn in favor of P. C. Haley for the sum of one thousand dollars (\$1,000.00), and that the same be paid to him as additional salary for the year ending December 31, A. D. 1901.

Respectfully submitted,

(Signed) WM. LEGNER,  
*Chairman.*  
WM. H. BAKER,  
JOS. C. BRADEN,  
Z. R. CARTER,  
THOMAS J. WEBB,  
FRANK X. CLOIDT,  
THOMAS A. SMYTH,  
*Committee on Judiciary.*

On motion of Mr. Legner, seconded by Mr. Cloidt, the report was adopted and the recommendations contained therein concurred in.

Yeas—Messrs. Baker, Braden, Carter, Cloidt, Legner, Smyth and Webb—Seven.

Nays—None.

COMMUNICATION FROM THE COMMISSIONER OF PUBLIC WORKS IN REFERENCE TO MACHINERY AT THIRTY-NINTH STREET PUMPING STATION.

The Clerk presented the following communication from Commissioner of Public Works, F. W. Blocki:

DEPARTMENT OF PUBLIC WORKS, }  
CHICAGO, December 16, 1901. }

To the Honorable, the Board of Trustees of the Sanitary District of Illinois:

GENTLEMEN—In the construction of machinery at the Thirty-ninth Street Pumping Station on the part of the city, and also necessary building for same, I understand that it is the desire of the District to erect additional pumps in order to make the capacity of the plant about 120,000 cubic feet per minute. As the city is about to award the contract for the installation of that portion of the machinery and pump in accordance with agreement between the Sanitary District and the City of Chicago, I would respectfully ask that if, in

submitting plans for the building to your Honorable Body for approval, it is your desire that the city should take into consideration the necessary foundations and increased size of building to accommodate such pumps and machinery as the Sanitary District may wish to install. If such should be the desire of your Honorable Body, I will be pleased to submit plans and indicate what, in my opinion, will be the proportionate cost of the erection of said building and foundations which should be paid by the Sanitary District, for your consideration.

Yours truly,

F. W. BLOCKI,  
Commissioner.

Mr. Carter, seconded by Mr. Baker, moved that the communication be referred to the Committee on Engineering.

The motion prevailed unanimously, and it was so ordered.

ORDER FOR THE PAYMENT OF INTEREST AND BONDS MATURING JANUARY 1, 1902.

Mr. Carter presented, and seconded by Mr. Cloidt, moved the adoption of the following order:

Ordered, That the Clerk of the Sanitary District of Chicago be, and he hereby is, instructed to draw a warrant payable to the order of the Treasurer of the District for the sum of seven hundred thirteen thousand two hundred twenty-five dollars (\$713,225.00) to be used by said Treasurer in the payment of the principal and interest of bonds maturing on the first day of January, 1902, as follows:

Second issue, eighth installment.....	\$150,000 00
Fourth issue, seventh installment.....	200,000 00
Fifth issue, sixth installment.....	40,000 00
Sixth issue, fifth installment.....	40,000 00
Ninth issue, second installment.....	50,000 00
Total Bonds.....	\$150,000 00
Second issue, 6 months' interest on \$1,950,000.00 at 5 per cent.....	\$ 48,750 00
Third issue, 6 months' interest on \$1,950,000.00 at 5 per cent.....	48,750 00
Fourth issue, 6 months' interest on \$2,800,000.00 at 4½ per cent.....	63,000 00
Fifth issue, 6 months' interest on \$600,000.00 at 4½ per cent.....	13,500 00
Sixth issue, 6 months' interest on \$640,000.00 at 4½ per cent.....	14,400 00
Seventh issue, 6 months' interest on \$200,000.00 at 3½ per cent.....	3,500 00
Eighth issue, 6 months' interest on \$190,000.00 at 3½ per cent.....	3,325 00
Ninth issue, 6 months' interest on \$950,000.00 at 4½ per cent.....	19 000 00
Tenth issue, 6 months' interest on \$950,000.00 at 4 per cent.....	19,000 00
Total Interest.....	\$233,225 00
Grand total.....	\$713,225 00

The roll being called, the order, as presented, was adopted by the following vote:

*Yeas*—Messrs. Baker, Braden, Carter, Cloldt, Legner, Smyth and Webb—Seven.

*Nays*—None.

**QUESTION OF REDUCING THE NUMBER OF EMPLOYEES IN THE POLICE DEPARTMENT REFERRED TO COMMITTEE ON HEALTH AND PUBLIC ORDER.**

Under the head of new business, Mr. Carter stated that he desired to call the attention of the Board to the question of a reduction of the number of employees in the Sanitary District Police Department, and as to the advisability of reducing the present force by nine men, beginning January 1, 1902, and requested that it be taken up for consideration.

Mr. Cloldt, seconded by Mr. Baker, moved that the matter in question be referred to the Committee on Health and Public Order, with instructions to report back to the Board at its next meeting.

The motion prevailed unanimously, and was so ordered.

**ADJOURNMENT TO SPECIAL TIME.**

Mr. Braden, seconded by Mr. Baker, moved that when the Board adjourns it adjourn to meet Friday, December 27, 1901, at 2 o'clock, P. M.

The motion prevailed unanimously, and it was so ordered.

**ADJOURNMENT.**

On motion of Mr. Cloldt, seconded by Mr. Legner, the Board adjourned.

*A. R. Porter.*  
CLERK

**ADJOURNED MEETING.**

The adjourned session of the Five Hundred and Fiftieth Regular Meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Friday, Decem-

ber 27, 1901, at 2 o'clock, P. M., pursuant to motion.

The President, Mr. Smyth, took the chair, and the roll being called, there were then

*Present*—Messrs. Braden, Carter, Cloldt, Legner, Smyth, Webb and Wenter—Seven

*Absent*—Messrs. Baker and Jones—Two.

President Smyth then called the Board to order.

**MINUTES.**

On motion of Mr. Legner, seconded by Mr. Cloldt, the minutes of the regular meeting held December 11, 1901, were approved as printed.

**MONTHLY REPORT OF THE CLERICAL DEPARTMENT.**

The Clerk presented the report of the Clerical Department for the month of November, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report :

CHICAGO, December 27, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith submit the report of the Clerical Department for the month of November, 1901.

The total expenditures of the District for the month of November 1901, were \$97,150.98, all of which was paid by regular warrants drawn on the Treasurer.

The total amount expended on account of, and charged to, the Clerical Department was \$978.58, of which amount the sum of \$958.38 was for salaries and the sum of \$15.25 for general office expenses.

The total amount expended for account of, and charged to, the General Account was \$6,841.65, divided as follows:

Rent of offices for November, 1901.	\$ 478 88
Printing.....	246 07
Salaries .....	2,558 88
Streams examination.....	2,862 29
General expenses.....	716 68

Total.....\$ 6,841 65

Of the total tax levy warrants heretofore issued, all have been redeemed, except \$10,963.29 of the levy of 1896.

The following is a tabulated statement of total expenditures for the month of November, 1901:

ACCOUNT.	AMOUNT.
Right of Way.....	\$ 9,804 70
Bridge Construction, Main Channel.....	21 27
Controlling Works, Lockport.....	917 76
Bridge Construction, Chicago River..	28,921 94
Chicago River Dredging, Docking, etc ..	28,606 27
Bridgeport Pumping Works.....	7 87
Telephone Line.....	68 15
Land Damages .....	5,000 00
Engineering Department.....	8,654 87
Clerical Department.....	978 58
Law Department.....	9,602 65
Treasury Department.....	875 00
Police Department .....	1,787 96
General Account.....	6,841 65
Maintenance Account.....	617 31
<b>Total .....</b>	<b>\$ 97,150 98</b>

Respectfully submitted,

(Signed)

A. R. PORTER, Clerk.

#### MONTHLY REPORT OF THE ENGINEERING DEPARTMENT.

The Clerk presented the report of the Engineering Department for the month of November, 1901, which, by unanimous consent, was ordered printed and placed on file.

The following is the report:

CHICAGO, December 26, 1901.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith present the report of the Engineering Department for the month of November, 1901, giving the detailed operations of the same.

The value of construction work done was \$58,839.23. Vouchers were issued on this account to the amount of \$45,761.86.

The engineering expenses for the month were \$8,068.86, divided as follows: Salaries, \$7,497.08; supplies, etc., \$566.28. Details of the figures here given are shown in the tabulated statements submitted herewith.

*Chicago River*—The contractor for the dredging and docking of the river had three dredges at work during the month taking material from the channel to a depth of 26 feet. The Canal Street dock was finished as was also that part of O. S.

Richardson & Co's. dock east of its present yard.

Dredge No. 6 worked as follows: On the 1st, filled in Canal Street dock; from the 2nd to the 7th, worked immediately west of Ashland Avenue; from the 7th to the 14th, excavated for the dock at the Richardson coal yard; and from the 14th to the 30th, worked between Harrison and Taylor streets.

Dredge No. 3 was at work from the 1st to the 16th, immediately east of Main street, and from the 18th to the 30th, was working between Madison and Adams streets.

Dredge No. 2 worked throughout the month between Ashland Avenue and Robey street.

The driving of the sheeting for the coffer dam on the east side of river at the proposed Randolph street bridge progressed very slowly throughout the month. At the end of the month the contractors had completed the driving of the sheeting for the dock line along the north, east and west sides of the abutment and were ready to drive piles for the foundations. On the 6th a dredge excavated about 400 cubic yards of material to facilitate the driving of sheeting. The temporary sewer on the east side of the river was completed on the 15th. During the progress of the work



It was found necessary, on account of the foundations of the building projecting into the street, to narrow up the abutment 16 inches on both the north and south sides.

On the 19th and 20th thirty-five cords of stone were dumped into the river immediately west of the south-west corner of the Channon Building.

On the 23rd the steamer "Ravenscraig" ran into the coffer dam, which was projecting about 20 feet into the river, and bent the channels and "I" beams so badly that five pieces had to be removed. On the 30th a pile driver began tearing down the west approach to the old bridge, but was discontinued on the same date. During the month 148.5 feet of sheeting were driven and there remains to be done about 140 feet to complete the coffer dam.

No work was done during the month at the site of the Harrison Street bridge on account of the plans for the new type of structure not having been completed.

The following work was done at the C. T. T. R. Co's Bridge during the month: On the 6th more counterweight was added in order to balance the rail laid on the movable part of the structure; on the 8th work in the counterweight pits was finished; on the 15th the positions of the suction pipes were changed so as not to interfere with the tail-piece when down; and on the 18th the pump motor on the east side of the river was repaired.

The work done during the month at the Canal Street Bridge consisted mainly of building concrete on the south side and the excavation for the foundation for the abutment on the north side. The work of placing the inner bracings at the north coffer dam was carried on from the 1st to the 11th. From the 11th to the 17th, work was carried on in connection with the installation of the plant on the north side and for the remainder of the month, excavation and the placing of bracing was carried on. Concreting on the south side was carried on during the entire month.

At the Main Street Bridge the contractor for the substructure worked the entire month laying concrete on the north side for the abutment and upon the south side most of the time was devoted to the building of retaining walls along the east and west sides of the street for the approaches

to the bridge. The work of building the tunnel was finished on the 4th. On the 6th the old shaft to the tunnel was arched over. On the 7th track girder protections were set in the south abutment. The sewer on the south side was finished on the 17th. The north anchor columns were set on the 24th.

The contractor for the superstructure of this bridge began to unload material on the 20th and on the 24th a derrick was erected on the south side preparatory to the erection of the bridge.

The substructure contractors for the Ashland Avenue Bridge completed their work at the beginning of November with the exception of the removal of the old center pier and the placing of protection around the north piers. The work of removing the old center pier was begun on the 2nd and finished on the 21st. The building of the concrete retaining walls was finished on the 9th.

*Section "O"*—Shannon & Chase continued sorting lumber near the warehouse during the month. The roof of the warehouse was repaired.

*Section "K"*—The core of the center pier of the Belt Railway Company's Bridge was concreted on Sanitary District force account. The work was begun on the 1st and finished on the 16th. The work of raising the Santa Fe tracks near the Belt Crossing was continued throughout the month with an average daily force of 120 men.

*Controlling Works*—The work of plastering the wier tubes and counterweight pits was completed on the 1st of the month. From the 1st to the 16th the west water wheel of the power development plant was taken apart, lifted out and, after the thumb-screws were loosened, was repaired. With the exception of four men, the force that carried on operations in connection with the water power development, etc., since the opening of the summer season, was dropped from the service of the District at the end of October.

The contractor for the installing of the electric light and heating apparatus has been at work since the 4th. Poles were set, wire strung, and heaters were placed in position.

*Telephone Line*—On the 5th a storm broke the line near Willow Springs. On the 17th four double sections of copper wire were cut down during the night and stolen, just west of the Pan Handle crossing. In both cases the damage to the line was repaired immediately. Between the 26th and the end of the month, all of the copper wire between the Pan Handle Bridge and a point about two miles west of Willow Springs was taken down and replaced by galvanized iron wire.

In the Drafting Department work was continued on the 200-foot scale map of the North Branch of the Chicago River, and the following drawings were made: Plan for the foundations for the Ashland Avenue Bridge; profiles of east and west bank of the Main Channel on Section 14; plan of the proposed location of pumps at Thirty-ninth Street Inlet; maps of the South Branch of the Chicago River for General Ernst, Resident Engineer for the United States, showing the proposed improvements; and plan showing location of new

bridge at Harrison Street. The stadia notes of a survey of the Conroy property were also reduced.

The checking of the shop plans for the Main Street Bridge was finished and approved. The work of checking the shop plans of the Canal Street Bridge was continued. A few sheets of the shop plans of Randolph Street Bridge were checked. The work of checking the plans for the proposed Hall Bascule Bridge for Harrison Street was begun.

In addition to the work reported, the engineering corps were principally engaged in taking flow measurements, in computing estimate notes, and in surveying, etc., in the Illinois River Valley.

I estimate that the expenses of the Department for the month of December will be \$60,000.00.

Respectfully submitted,

(Signed)

ISHAM RANDOLPH,

Chief Engineer.

# SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.

## CLASSIFIED STATEMENT OF EXPENDITURES FOR THE MONTH OF NOVEMBER, 1901.

CLASSIFICATION.	ENGINEERING EXPENSES			Construction.
	Salaries.	Supplies, Etc.	Totals.	
Maps and Plans for General Use.....	\$ 354 00	\$ 5 52	\$359 52	.....
Right of Way.....	25 00	1 45	26 45	.....
Hydraulic Measurements.....	752 50	172 01	924 51	.....
Mortar, Sand and Cement Tests.....	243 75	5 45	249 20	.....
Photographs of Works.....	125 00	1 60	126 60	.....
Thirty-ninth Street Conduit.....	301 25	4 75	306 00	.....
Chicago River, Dredging, Docking, etc.....	2,146 25	103 00	2,249 25	\$36,070 25
State Street Bridge, Chicago River.....	25 00	18 60	38 60	.....
Randolph Street Bridge, Chicago River.....	563 40	24 07	587 47	711 81
Harrison Street Bridge, Chicago River.....	376 70	20 85	397 55	.....
C. T. T. R. R. Co.'s Bridge, Chicago River.....	175 00	12 20	187 20	.....
Canal Street Bridge, Chicago River.....	301 18	52 22	353 40	6,028 28
Main Street Bridge, Chicago River.....	629 33	65 04	694 37	9,719 85
Ashland Avenue Bridge, Chicago River.....	512 70	65 29	577 99	3,220 29
Main Channel and River Diversion Excavation, etc.....	.....	9 60	9 60	.....
Pan Handle Permanent Bridge, Main Channel, Sec. O	25 00	.....	25 00	.....
Belt Railway Company of Chicago Permanent Bridge,	.....	.....	.....	.....
Main Channel, Section "K".....	175 00	8 28	183 28	.....
Disposal Works and Joliet Project.....	266 00	1 25	267 25	.....
Totals.....	\$7,497 08	\$ 566 28	\$8,063 36	\$45,761 86

## SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—VALUES.

*Amount Earned During November, 1901.*

CLASSIFICATION.	CHICAGO RIVER.		Totals.
	Dredging, Docking, Etc.	Bridges.	
Chicago River, dredging, docking, etc.....	\$29,795 30	.....	\$ 29,795 30
Randolph Street Bridge, Chicago River.....		\$ 818 50	818 50
Main Street Bridge, Chicago River.....		12,908 40	12,908 40
Ashland Avenue Bridge, Chicago River.....		3,681 88	3,681 88
Canal Street Bridge, Chicago River.....		7,330 20	7,330 20
Totals.....	\$29,795 30	\$24,048 98	\$ 53,889 28

## SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—QUANTITIES.

*Amount Done During November, 1901.*

CLASSIFICATION.	Glacial Drift. Cu. Yds.	Masonry and Concrete. Cu. Yds.	Piles. Lin. Ft.
Chicago River, dredging, docking, etc.....	102,000	.....	.....
Randolph Street Bridge, Chicago River.....	400	.....	.....
Main Street Bridge, Chicago River.....	3,145	1,124.0	.....
Ashland Avenue Bridge, Chicago River.....	274	295.2	.....
Canal Street Bridge, Chicago River.....	.....	785.0	720
Totals.....	104,819	2,174.2	720

## ANNUAL REPORT OF THE ENGINEERING DEPARTMENT FOR 1900.

The Clerk presented the Annual Report of the Engineering Department for the year ending December 31, 1901. By unanimous consent the report was ordered printed and placed on file.

The following is the report:

CHICAGO, October 1, 1901.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Annual Report of the Engineering Department for the year 1899 is found in the Proceedings for 1900, under date of December 26th.

I now submit the report for that Department for the year 1900, in which is cited all of the facts covering that period in as brief a manner as is consistent with the preservation of these reports as reliable compendiums of the history of the construction features of this District.

The value of the work performed within the year 1900 aggregates \$1,768,910.20. The amount vouchered for payment, including the reservations on completed contracts, was \$1,907,638.61. The approximate value

of all construction contracts to December 31, 1900, was \$25,628,497.90. The total amount earned to that date was \$24,887,911.41. About 97 per cent. of the work under contract was completed.

As in the report for 1899, the work of this District will be presented in this report under three heads, namely: First Division, Chicago River; Second Division, Main Channel (from Robey Street to Lockport, with Controlling Works and Desplaines River Diversion); Third Division, Desplaines River (from the Controlling Works to Hickory Creek, Joliet), known as the Joliet Project.

FIRST DIVISION.—The value of work completed or under contract at December 31, 1900, for this Division, was as follows:

Chicago River, dredging, docking, etc.	.....
.....	\$ 648,022 31
Chicago River, by-passes.....	541,103 19
Chicago River, bridges.....	729,004 71
Total.....	\$1,918,130 21

SECOND DIVISION.—The value of work completed or under contract at December 31, 1900, for this Division, was as follows:

Main Channel, excavation, wall work, etc.....	\$18,547,892 88
Main Channel, temporary bridges.....	212,846 00
Main Channel, permanent bridges.....	1,857,624 90
River Diversion, excavation, etc.....	1,000,186 38
Diver Diversion, temporary bridges.....	23,579 32
River Diversion, permanent bridges.....	118,812 62
Controlling Works, sluice gates, bear trap dam, etc.....	311,865 20
Controlling Works, bridge.....	7,924 50
Total.....	<u>\$22,080,731 80</u>

THIRD DIVISION.—The value of work completed or under contract at December 31, 1900, for this Division, was as follows:

Joliet Project, excavation, masonry, etc.....	\$1,282,035 12
Joliet Project, temporary bridges.....	25,383 58
Joliet Project, permanent bridges.....	245,201 11
Total.....	<u>\$1,552,619 81</u>

In addition to the work contracted for under the three heads enumerated above, the Sanitary District made certain improvements in the Illinois and Michigan Canal at and near the Bridgeport Lock, the cost of which was \$77,016.08.

The condition of the work of the Engineering Department will appear in the statements of the sections upon which the work was performed and of the permanent bridges constructed or undergoing construction, and in the tabulations which form a part of this report, as follows:

*Table No. 1.*—A classified statement of the engineering and construction expenses for the year 1900 and the total of same from date of organization to December 31, 1900.

*Table No. 2.*—A revised approximate estimate of construction contracts to December 31, 1900, showing the values involved therein.

*Table No. 3.*—A classified statement of construction earnings for the year 1900.

*Table No. 4.*—A classified statement of construction earnings from the beginning of work to December 31, 1900.

*Table No. 5.*—A classified statement of construction contract obligations on December 31, 1900.

*Table No. 6.*—A revised approximate estimate of construction contracts to December 31, 1900, showing the quantities involved therein.

#### CHICAGO RIVER.

The contracts in force on January 1, 1900, were those of the Lydon and Drews

Company for dredging the South Branch of the river and building the substructure of the by-pass; Griffiths & McDermott, for the superstructure of the by-pass; Chicago Bridge and Iron Company, for the shore span of the Van Buren Street Bridge; Pennsylvania Steel Company, for the C. T. T. R. R. Co.'s Bridge; and the Chicago Bridge and Iron Company, for the Taylor Street Bridge. These bridges will be treated in this report under the general head of Bridges.

On January 31st, (pages 6274-5 of the Proceedings), the Board adopted an order directing the Committee on Engineering to begin an investigation of the current in the river at the sites of the center-pler bridges and that if it be found that the velocity of said current be such as to be a hindrance to navigation, that estimates be made of the cost of replacing the center-pler bridges with those of the bascule type.

On April 4th (pages 6393-5), Trustee Jones presented a resolution that the Committee on Engineering be directed to prepare plans for the widening and deepening of the river and for the substitution of bascule for center-pler bridges, with a view to supplying the volume of water required by the law of the State of Illinois without violating the permit of the War Department of May 8, 1899. At the same time, Trustee Wenter presented a resolution that the Chief Engineer be directed to submit an estimate of the cost of widening the river, "from its fork at Lake Street through the South Branch to Robey Street, maintaining an approximate width of 200 feet with a depth of not less than 26 feet." and that the estimate shall include the construction of bridges of the bascule type in lieu of the center-pler bridges. The resolu-

tions were referred to the Committee on Engineering.

On April 11th (pages 6409-14), the Committee on Engineering reported on these resolutions and the Board passed an order directing the said Committee "to adopt plans and advertisements for the construction of three bridges of the bascule type at the most necessary points on the Chicago River," with a view to an ultimate channel of 30 feet depth and 200 feet width.

On the same date (page 6414), the Board adopted a resolution determining the length of piles to be used in all new dock work as follows: Front piles of a length not less than 50 feet; anchor piles of a depth not less than 35 feet, and sheet piling of a depth not less than 38 feet.

On May 16th (page 6556), at the time that the representatives of the Lake Carriers' Association addressed the Board in reference to the improvement of the Chicago River, the Trustees ordered the construction, across this river, of four bridges of the bascule type in addition to those already ordered.

On June 6th (pages 6601-2), the Board adopted an ordinance establishing a plan for the improvement of the South Branch of the Chicago River to a uniform width of 200 feet and an ultimate depth of 30 feet.

On June 29th (page 6637), the Board ordered the dredging in the South Branch of the Chicago River to be stopped on July 10th, and that proposals for the balance of the work be advertised.

On July 11th (pages 6654-5), the Board authorized the publication of an advertisement inviting bids for "dredging the Chicago River between its mouth and the main branches thereof; thence throughout the South Branch of the said river to the West Fork of the South Branch thereof; thence throughout the West Fork to a junction with the Main Channel of the Sanitary District of Chicago, near Robey Street, and also such dredging as may be ordered by the Sanitary District of Chicago in the West Fork and in the South Fork of the South Branch of the Chicago River and the construction of such dockage as may be ordered by the District, together with all other collateral work."

On August 29th (pages 6697-9), President Boldenweck transmitted permits from the Secretary of War "for the widening and deepening of the Chicago River from Lake

Street to Ashland Avenue and from Twelfth Street to Ashland Avenue."

*Chicago River Dredging and Docking—  
Lydon & Drews Company, Contractor.*

On September 12th (pages 6738-38a), the Board opened six bids for the work advertised for on July 11th, which were referred to the Chief Engineer for tabulation. On the same date (page 6734), the Chief Engineer transmitted a communication to the Board giving the quantities to be used as a basis for a comparison of the above mentioned bids. On September 19th (pages 6745-6), the Board awarded the contract for this work to the Lydon & Drews Company, as the lowest responsible bidder. On September 26th (page 6775), the bond on this contract, amounting to \$25,000.00, was received by the Board. The contract, which bears date of September 21st, appears on pages 6766-74 of the Proceedings.

Under its contract with the Sanitary District, dated May 28, 1897, the Lydon & Drews Company continued the work of dredging the South Branch of the river until July 10th, the date set by the Board for the stoppage of dredging until a new contract had been let, based upon a more comprehensive scheme of river improvement. The total amount dredged during the year under this contract was 98,492 cubic yards, representing an earning of \$18,713.48.

On February 7th (pages 6283-4), the Board of Trustees authorized the Chief Engineer to arrange with the Lydon & Drews Company for the dredging of the South Fork of the South Branch of the river, and on February 10th (page 488 of his letter book), the Chief Engineer issued the following order to this company:

"Proceeding under the authority vested in the Chief Engineer of the Sanitary District of Chicago by your contract with said District under date of May 28, 1897, for dredging the Chicago River and in conformity with the section thereof relating to 'extra work,' I now request and direct you to proceed to dredge the South Fork of the South Branch of the Chicago River from its confluence with the West Fork southward to such point on the west arm of the South Fork as has heretofore been dredged under the United States Government contracts, and to Halsted Street at the east end to the east arm of the South Fork. The work to be done subject to all of the terms and conditions of your said contract of May 28, 1897, except as herein modified.

"The dredging covered by this order is to be of a uniform depth of twenty (20) feet below Chicago Datum for a channel width of not less than forty (40) feet and side slopes of one (1) foot vertical in five (5) feet horizontal; the channel so excavated to follow the center thready of the stream unless otherwise ordered by the Engineer. The excavated material to be disposed of as is provided in the contract heretofore referred to unless other disposition thereof is directed by the Engineer.

"For the work covered by this order, you are to be paid the sum of nineteen (19) cents per cubic yard, the price named in the contract, if disposed of in the manner provided in the contract. If, however, you are required to deposit the dredged material in the Lake Front Park, you are to be paid an additional sum of sixteen (16) cents for each cubic yard of material there deposited. This order is not intended to cover the excavation of rock or other material approximating rock in hardness, but is intended to cover material of the general character heretofore dredged under the aforesaid contract. Should such difficult material be encountered, it will form a matter for adjustment under the provisions of the contract relating to extra work.

Soft material, 124,144 cubic yards at 19c.....	\$ 23,587 36
Hard material, 106,138 cubic yards at 84c.....	89,155 92
Total.....	<u>\$112,743 28</u>

The final voucher for the work done in the South Branch and in the South Fork of the South Branch, under the contract dated May 28, 1897, was issued on November 22d (File No. 4335) and passed by the Board on November 28th (page 6870). The final certificate of the Chief Engineer appears on page 6872.

The Lydon & Drews Company continued to haul the material dredged from the South Branch to the Lake Front Park, carrying 98,251 cubic yards during the year, at a cost to the District of \$15,720.16 (File No. 4299). In the order issued by the Chief Engineer on February 7th and quoted above, arrangements were made with this company to haul the material taken from the South Fork of the South Branch to the Lake Front Park, and 161,889 cubic yards were carried at a cost to the District of \$25,862.24 (File No. 4299).

In accordance with an agreement with the People's Gas Light and Coke Company, shown in the Proceedings for June 29th

"All of the work covered by this order to be completed on or before April 10, 1900.

"Save as herein modified, all of the terms, conditions and obligations of the aforesaid contract of May 28, 1897, shall be and remain in full force and effect."

In the month of March it became manifest that this work would not be completed on contract time, unless some extraordinary efforts were made on the part of the contractor and, on the 27th of that month (page 107 of his letter book), the Chief Engineer pointed out to this firm the necessity for increasing the force of men and employing a larger outfit.

During the progress of the work, this Company encountered material which was classified as hard and the Chief Engineer fixed the price of same at 84 cents per cubic yard (see Chief Engineer's letter book dated April 6th and 10th, pages 125 and 139).

The work covered by these orders was completed to within 100 feet of the west line of Halsted Street at the end of September and the amount of work done was as follows:

(pages 6632-3), the Sanitary District agreed to build a new dock for this Gas Company. On June 23d (page 323 of his letter book), the Chief Engineer issued the following order to the Lydon & Drews Company:

"Acting under the provisions of your contract of May 28, 1897, wherein, under the 'extra work' clause, the Chief Engineer has authority to order any work which may be required to be done which is not now contemplated or covered by the prices now or hereafter given, the Chief Engineer shall fix such prices for the work as he shall consider just and equitable, and the contractor shall abide by such prices, etc., etc.

"In accordance with this provision, I hereby request and direct you to proceed to dock the property of the People's Gas Light and Coke Company, located on the north side of the Chicago River between Allen's Slip and Throop Slip, the same being the river front of Lots 28, 29, 30 and 31. The docking to be in accordance with the specifications submitted herewith and made a

part of this order (see page 83 of specification book on file in Engineering Department).

"For the docking so done, you are to be paid the sum of eighteen (18) dollars per lineal foot of completed dock, as described in said specifications.

"For the dredging necessary to accomplish this work, you will be paid the price fixed in your said contract of May 28, 1897, namely, nineteen (19) cents per cubic yard.

"For the pulling and removal of detached piles you are to be paid one dollar and fifty cents (\$1.50) each, which is the price fixed in the aforesaid contract."

The work covered by this order was completed in the month of September and a voucher was issued for the following items (the excavation done under this order amounted to 6,336 cubic yards, an earning of \$1,203.84, and appears on the regular voucher for the dredging of the South Branch):

<i>File No.</i>	<i>Nature of Work.</i>	<i>Amount.</i>
4298	Piles pulled and removed, 198 at \$1.50.....	\$ 297 00
	Dock built, 526 lin. ft. at \$18.00.....	9,468 00
4380	Extra work carrying sewer box through dock (force account).....	364 86
Total.....		<u>\$10,129 86</u>

The Lydon & Drews Company began operations under its contract, dated September 21, 1900, on November 7th and excavated 51,100 cubic yards of material during the balance of the year, which represented an earning of \$12,519.50.

On December 19th (page 6918), the Board authorized the advertisement for proposals for the excavation of a ledge of rock "in the South Fork of the South Branch of the river extending northwardly from Thirty-fifth Street for about 400 feet." This rock was discovered during the progress of the work of the Lydon & Drews Company, but was not covered in the contract of the said company. Bids for this work were not received during the year 1900.

On September 26th (page 6775), the Board directed the Chief Engineer to order the Lydon & Drews Company to excavate at the docks of the C. R. I. & P. Ry. Co. and to construct a new dock for the said railroad company. On October 31st (page 212 of his letter book), the Chief Engineer issued the following order to the Lydon & Drews Company:

"Inasmuch as the character of dock called for by the contract of this District with the Chicago, Rock Island and Pacific R. R. Co.,

covering a certain stretch of dock about 232 feet in length, located between the C. T. T. R. R. Bridge and Twelfth Street, on the east side of the Chicago River, requires conformity to the standard specifications of that company and, inasmuch as those specifications differ from those contained in your contract with this District dated September 21, 1900, it is proper to adjust prices to meet the new conditions under the 'extra work' clause of said contract. I, therefore, fix the price to be paid you for building such a dock as is called for by the C., R. I. & P. R. R. contract, at fourteen dollars and thirty-seven cents (\$14.37) per lineal foot of dock constructed. For pulling the existing dock, you are to be paid the price named in your aforesaid contract, namely, one dollar and seventy-five cents (\$1.75) per lineal foot of dock.

"For all the material taken from the dock to be removed and used in the dock to be built, you will credit the District with its value at the current market price of new material of the same class.

"Please proceed promptly to execute the work covered by this order."

This work was completed in the month of December and vouchers were issued for the following items:

<i>File No.</i>	<i>Nature of Work.</i>	<i>Amount.</i>
4380	Dock built, 230 lin. ft. at \$14.37.....	\$3,305 10
	Dock pulled and removed, 149 lin. ft. at \$1.75.....	260 75
	Extra work carrying sewer box through dock (force account).....	29 03
		<u>\$3,594 88</u>
4383	Less 1,800 lineal feet piles salvage, at 16c.....	288 00
Total.....		<u>\$3,306 88</u>

During the progress of the erection of the Eight-Track Bridge, the contractor for the superstructure experienced considerable inconvenience on account of the passage of boats under the said bridge. The matter was brought before the Committee on Engineering on July 16th and the advisability of having the boats pass through the collateral channel was discussed and the Chief Engineer was instructed to make soundings in the channel and if shoal water was found, to dredge it to a sufficient depth to allow the free passage of crafts. As part of this scheme, it was found necessary to deepen the West Fork of the South Branch of the Chicago River west of Robey Street,

and the Chief Engineer made an arrangement with the Lydon & Drews Company to do the work on force account.

The work was completed about the end of August and a voucher was issued on this account for \$2,056.15 (File No. 4308). For cost of dredging the Collateral Channel, see Section "O", under head of Main Channel.

In addition to the work above enumerated as having been done by the Lydon & Drews Company, sundry extra work was done by this firm under verbal orders of the President and the Chief Engineer, a schedule of which follows:

File No.	Nature of Work.	Amount.
4192	Laying new cable at Van Buren Street Bridge.....	\$ 51 75
4280	Dredging and removing piles near C. T. T. R. Co.'s Bridge.....	1,568 05
4380	Strengthening north abutment of Main Street Bridge.....	278 09
Total.....		\$1,897 89

On March 7th (page 6329), the Board took up the subject of the cleansing of the Chicago River and its branches through the agency of the proposed Lawrence Avenue and Thirty-ninth Street Intercepting Sewers, and instructed the Chief Engineer to submit plans for the relief of the west arm of the South Fork of the South Branch of the Chicago River in order to complete the scheme of purification. On October 29th (page 201 of his letter book), the Chief Engineer made a report on the subject to the Committee on Engineering.

On March 21st (page 6356), the Board authorized the Chief Engineer to hire the necessary men and machinery to improve that part of the west side of the river lying between Eighteenth Street and Stewart Avenue, between which points the necessary right of way had been acquired. In consequence of this order, the Chief Engineer, on April 2d (page 116 of his letter book), issued the following order to The FitzSimons & Connell Company:

"I hereby accept your proposal of March 21st to furnish the necessary outfit, consisting of one dredge, one tug and three dump scows, all fully manned and equipped, the same to be operated by you in removing the material to be dredged from the west side of the Chicago River north of the Fort Wayne Bridge, from properties recently secured by this District by purchase from the owners, King & Hoynes. For this outfit you are to be paid a rental of one hundred and seventy-five (\$175.00) dollars per day, with this limitation, that the aggregate cost of

excavating and removing the material in question from the Chicago River or other navigable waters of the United States and disposing of the same within the Lake Front, or such other authorized spoil area as you may elect, shall not exceed an average cost to this District of thirty-five (35) cents per cubic yard. Should the cost be less than the average named, then you shall receive the agreed rental named herein.

"For the use of your pile driver in pulling piles from the old dock found in rear of the front line, which you have already removed, you will be paid at the rate of fifty (\$50.00) dollars per day for the time necessarily consumed in the work.

"This order is given under authority vested in the Chief Engineer by order of the Board of Trustees passed at its regular meeting, March 21st last.

"Please proceed to execute the work called for herein promptly."

Previous to the issuance of this order, The FitzSimons & Connell Company was under contract with J. B. King to build a new dock along the old dock line. The proposed improvement by the Sanitary District involved the establishment of the dock line farther to the west and the District assumed the cost of the work done under the King contract. After having done some work under the order of the Chief Engineer, the Committee on Engineering ordered the work stopped. This order was passed on April 18th and the



contractor was notified by the Chief Engineer on the same day (page 176 of his letter book). On May 7th, the Committee on Engineering authorized the payment of a bill for this work amounting to \$1,398.00 (File No. 3957). On October 4th (page 6813), the Board adopted a recommendation of the Chief Engineer for an additional payment of \$400.00 in full settlement for all work done at that point (File No. 4301).

On May 9th (page 6453), the Board directed the Chief Engineer to "purchase lumber and hire the men necessary to replank certain dock property formerly belonging to Henry A. Dupont, condemned by the Sanitary District and later conveyed to

the Federal Government." On May 8th (page 207 of his letter book), the Chief Engineer accepted the proposition of the Rathbone, Hair & Ridgway Company to furnish and deliver 87,000 feet of lumber. Arrangements were also made with Henry Stuckart for the supply of certain tools, etc.; with The Illinois Nail Company for nails, and with a force of men to do the work. After having employed the men from May 9th to the 15th the Chief Engineer, on May 15th (page 221 of his letter book), made arrangements with the Rathbone, Hair & Ridgway Company to complete the work, the force account work having been found too costly a method. The vouchers issued on account of this work were as follows:

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
4044	Joseph F. Haas, Clerk, pay rolls.....	\$ 363 51
4045	Henry Stuckart, tools, etc.....	23 75
4046	Illinois Nail Co., nails.....	62 50
4066	Rathbone, Hair & Ridgway Co., lumber and finishing dock.....	1,629 00
Total.....		<u>\$2,078 76</u>

During the months of May and June, Green's Dredging Company did certain work on the north side of the river near Main Street, at what is known as the Spry property. This work was at first being done under the direction of the United States Government and was afterward done under the direction of the Sanitary District, as the work was in line with the comprehensive plan for the improvement of the Chicago River adopted by the Board on June 6th. The excavation amounted to 17,983 cubic yards and was paid for at the contract price between Green's Dredging Company and the United States Government, namely, 16.9 cents per cubic yard. The entire work consisted of excavation and pulling and driving piles, and was completed in the month of June at a total cost of \$3,782.35 (File No. 4145).

During the months of June and July,

this company did certain work on the south side of the river at what is known as the People's Gas Light and Coke Company's property. The excavation, amounting to 5,312.4 cubic yards, was also paid for at the United States Government contract price with this company. The work consisted of excavation and pulling and driving piles, and was completed in the month of July at a total cost of \$1,162.55 (File No. 4209).

During the months of September and October, this same company did certain work on the west side of the river, at the W. A. Havemeyer property. The work consisted of 4,215 cubic yards of excavation, paid at the government contract price, and 131 lineal feet of new dock, at \$18.00 per lineal foot. The work was completed in October at a total cost to the District of \$3,070.34 (File No. 4296).

The following additional vouchers were issued during the year for labor and material furnished in connection with the Chicago River Improvement work:

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
3651	E. S. McDonald, repairs to Jackson Street Bridge.....	\$188 63
4079	General Electric Co., cable for Van Buren Street Bridge.....	255 00
4116	J. G. O'Neill, cable for Van Buren Street Bridge.....	126 00
4134	E. W. Blatchford & Co., lead pipe.....	63 30
Total.....		<u>\$632 93</u>

A summary of the earnings for the year 1900 for all the work done in connection with the dredging and docking of the Chicago River is as follows:

Lydon & Drews Company.....	\$202,948 94
Miscellaneous.....	12,524 93
Total.....	<u>\$215,473 87</u>

The status of the dredging and docking contracts at December 31 was as follows:

#### COMPLETED WORK.

Excavation, 1,261,091.4 cubic yards at 19 cents.....	\$238,403 53	
Excavation, 51,100 cubic yards at 24½ cents.....	12,519 50	
Excavation, 106,138 cubic yards at 84 cents.....	89,155 92	
Haul to Lake Front Park, 441,890 cubic yards at 16 cents.....	70,702 40	
C., R. I. & P. Ry. Co. Dock:		
Piles pulled and removed, 149 lin. ft. at \$1.75.....	\$ 260 75	
Box sewer running through dock (force account).....	29 03	
Dock construction, 230 lin. ft. at \$14.37.....	3,305 10	
	<u>\$3,594 88</u>	
Less 1,800 piles salvage at 16 cents.....	\$ 288 00	3,306 88
Hayemeyer Dock:		
Excavation, 4,215 cubic yards at 16 cents.....	\$ 712 34	
Dock construction, 131 lineal feet at \$18.00.....	2,358 00	
		<u>3,070 34</u>
King Dock, replanking (force account).....		1,798 00
Cosmopolitan Electric Co. and Halle Dock:		
*Excavation, 4,657.9 cubic yards at 19 cents.....	\$ 885 00	
Dock construction, 171.8 lineal feet at \$14.25.....	2,448 15	
		<u>3,333 15</u>
McConnell Dock:		
*Excavation, 13,986.7 cubic yards at 19 cents.....	\$2,657 47	
Dock removed, 500 lineal feet at \$1.75.....	875 00	
Piles pulled, 5 at \$1.50.....	7 50	
Dock construction, 298 lineal feet at \$14.25.....	4,246 50	
Snubbing piles driven (force account).....	103 04	
		<u>7,889 51</u>
Dupont Dock (force account).....		2,078 76
People's Gas Light & Coke Co. Docks:		
Excavation, 5,312.4 cubic yards at 16.9 cents.....	\$ 897 80	
*Excavation, 6,336 cubic yards at 19 cents.....	1,203 84	
*Piles pulled and removed, 198 at \$1.50.....	297 00	
Piles pulled (force account).....	43 75	
Piles driven, 37 at \$4.00.....	148 00	
Digging trenches on original line not used (force account).....	73 00	
Box sewer running through dock (force account).....	364 36	
Dock construction, 526 lineal feet at \$18.00.....	9,468 00	
		<u>12,495 75</u>
Spry Dock:		
Excavation, 17,983 cubic yards at 16.9 cents.....	\$3,039 13	
Piles pulled and removed (force account).....	85 00	
Piles driven, 58 at \$4.00.....	232 00	
Putting in snubbing posts and protecting angles (force account)...	510 22	
		<u>\$3,866 35</u>
Less 42 old piles used in new work, at \$2.00.....	84 00	
		<u>3,782 35</u>
Deepening West Fork of South Branch west of Robey Street (force account)...	2,056 15	
Removing Taylor Street Bridge (lump sum).....	10,450 00	
Removing old piles near C. T. T. R. R. Co.'s Bridge (force account).....	1,568 05	
Strengthening abutment of Main Street Bridge.....	278 09	

Repairs to Jackson Street Bridge.....	188 63
Cable at Van Buren Street Bridge, 600 feet at 42½ cents.....	255 00
Cable at Van Buren Street Bridge, 300 feet at 42 cents.....	126 00
Laying cable at Van Buren Street Bridge.....	51 75
Air pipe at Van Buren Street Bridge, 1,266 pounds at 5 cents.....	63 30

Total amount completed work.....\$463,573 06

#### UNCOMPLETED WORK.

Excavation, 282,650 cubic yards at 24½ cents.....	\$69,249 25
Haul to Lake Front Park, 333,750 cubic yards at 8 cents.....	26,700 00
Dock removal, 3,750 lineal feet at \$1.75.....	6,562 50
Dock construction, 3,750 lineal feet at \$21.85.....	81,937 50
	<hr/> 184,449 25

Estimated cost of contracts.....\$648,022 31  
Amount earned to January 1, 1901.....463,573 06

Unfinished work.....	\$184,449 25
Reserved percentage.....	1,564 94
Unpaid vouchers.....	6,774 25

Balance required to complete.....\$192,788 44

\*These amounts are covered in regular estimates for dredging, issued under contract dated May 28, 1897.

*By-Passes Between Adams and Van Buren Streets—Lydon & Drews Company, Contractor for Substructure. Griffiths & McDermott, Contractors for Superstructure.*

The by-pass was completed for use at the end of March and was opened on April 7th. The volume and value of work done by the Lydon & Drews Company during the year, which appears in its regular vouchers, is as follows:

Excavation, 5,685 cubic yards at \$1.00.....	\$ 5,685 00
Timber in bridge protection, 4,098 feet B. M. at \$25.00.....	102 45
Timber in bridge protection, 49,292 feet B. M. at \$55.00.....	2,711 06
Timber in docks, 2,597 feet B. M. at \$25.00.....	64 93
Timber in docks, 35,560 feet B. M. at \$55.00.....	1,955 80
Piles in docks, 3,960 lineal feet at 36 cents.....	1,425 60
Piles regular under readjustment, 11,937 lineal feet at 36 cents.....	4,297 32
Portland cement concrete, 213.7 cubic yards at \$8.00.....	1,282 20
Cast iron for cylinder piers, 10 29-60 tons at \$75.00.....	786 25
Iron in docks, 5,350 pounds at 6 cents.....	321 00
Paving, 4,052.44 cubic yards at 50 cents.....	2,026 22
Lump sum for sundries under contract.....	100 00
Old timber taken out and removed, 1,773,403 feet B. M. at \$15.00.....	26,601 05
Old timber removed only, 68,628 feet B. M. at \$10.00.....	686 28

Total.....\$48,045 16

On February 7th (page 6281), the Board directed the Chief Engineer to arrange for rebuilding the protection pier at Adams Street. An arrangement was made with the Lydon & Drews Company to do this work and the items appear on the regular vouchers issued to this company.

On September 19th (pages 6743-4), the Board authorized the reduction of the bond of the Lydon & Drews Company from \$30,000.00 to \$5,000.00. The final voucher on

regular contract for the substructure, which amounted to \$7,485.58, was passed by the Board on November 28th (page 6870). The final certificate of the Chief Engineer appears on pages 6871-2.

On January 26th (page 455 of his letter book), the Chief Engineer issued an order to the Lydon & Drews Company, which reads as follows:

"On September 21, 1899, the Trustees, acting as the Committee on Engineering,

declined that it was desirable to deposit the material remaining to be excavated from the by-pass under the provisions of your contract of June 30, 1898, on the area known as the Lake Front Park, which disposition is in the nature of extra work. I, therefore, acting under the provisions of your contract relating to extra work, now confirm my verbal order to you at that time, which required you to deposit all material which you shall excavate from said by-pass hereinbefore designated; and for this service, I fix the price to be paid you at sixteen (16) cents per cubic yard, as measured by our engineers, in the manner heretofore adopted for determining the amount of excavation performed by you.

"And, further, all material excavated and spoiled in the Chicago River by the Chicago Bridge and Iron Company, under their contract dated December 31, 1898, I require you to remove and deposit upon the aforesaid area, and for this service I fix the price for the dredging at nineteen (19) cents per cubic yard and for depositing upon the

aforesaid area at sixteen (16) cents per cubic yard, as measured by our engineers, in the manner heretofore adopted for determining the amount of excavation performed by you.

"This order to apply to all material excavated by you under this order, subsequent to the 21st day of September, 1899."

This order was accepted and 16,913 cubic yards of material was taken from the by-pass and hauled to the Lake Front, at a cost to the District of \$2,706.08. The amount dredged at the Van Buren Street Approach Span and hauled away will be treated in this report under the head of Bridges.

In addition to the work mentioned above, considerable work was done by the Lydon & Drews Company under the "extra work" clause of its contract by sundry orders of the Chief Engineer. The following schedule shows the nature and amounts of said work:

<i>File No.</i>	<i>Nature of Work.</i>	<i>Amount.</i>
3652	Struts.....	\$ 198 95
	Union Line Freight House.....	86 25
	Pumping leak of Metropolitan Water Tunnel.....	1,761 68
	Repair of sewer at Van Buren Street Bridge.....	94 30
	Cleaning out basin at Van Buren Street Bridge.....	112 13
	Back-filling and grading.....	721 74
	Repairs to roadway.....	22 31
		<hr/> \$ 2,997 36
3777	Holsting Van Buren Street Cable.....	\$ 135 70
	Changing tracks account removal of hoist.....	309 35
	Moving pumps and pipes account tunnel repairs.....	9 83
	Cleaning out basin east of Van Buren Street Bridge.....	17 25
	Holsting old dock timbers.....	63 82
	Assisting in making soundings.....	31 63
	Cleaning out intake strainer.....	5 75
	Transferring coal.....	8 62
	Cleaning out ashes from C. & A. Building.....	20 13
	Pumping leak at Metropolitan tunnel.....	2,139 00
		<hr/> 2,741 08
3869	Repairs to C. & A. Building.....	\$1,200 72
	Taking out bulkhead at Adams Street Sewer.....	40 53
	Pumping out by-pass.....	1,932 00
		<hr/> 3,173 25
3964	Building chamber in connection with Metropolitan Water Tunnel.....	4,500 00
3976	Putting boards around sewer pipe.....	\$ 16 10
	Removing concrete forms dumped on hoist.....	34 50
	Removing sewer pipe stands.....	81 65
	Excavating north of Van Buren Street, grouting tunnel and re moving dams.....	3,425 28
	Temporary roadway at Union Line Freight House.....	131 10
		<hr/> 3,688 63

<i>File No.</i>	<i>Nature of Work.</i>	<i>Amount.</i>
4049	Removing dams and puddling West Chicago R. R. tunnel.....	\$ 814 20
	Temporary roadway at Pennsylvania Co.'s freight house.....	224 36
	Coffer dam.....	43 12
	Temporary platform and roadway at incline.....	90 85
	Work account C. & A. Building.....	3,950 93
	Pumping at Metropolitan water tunnel.....	258 75
		<hr/> 5,382 21
4198	Rebuilding Pennsylvania Co.'s freight house.....	\$6,194 94
	Tearing down old and rebuilding new incline at Van Buren Street.....	2,179 02
		<hr/> 8,373 96
4199	Plastering concrete wall north of Van Buren Street.....	\$ 28 32
	Repairing and rebuilding platform at Union Line freight house...	286 12
	Rebuilding Pennsylvania freight houses.....	1,153 55
	Replacing team scales near Jackson Street.....	110 81
	Tearing down old and rebuilding new incline at Van Buren Street.....	1,843 48
	Filling roadway for paving.....	1,853 41
		<hr/> 5,277 69
Total.....		<hr/> \$36,134 18

The contractors for the superstructure of the by-pass had issued to them on regular vouchers during the year 136.49 cubic yards of Portland cement concrete and an earning of \$36,654.71. Owing to delays on other portions of the by-pass work, which prevented Griffiths & McDermott from entirely completing their contract, the Committee on Engineering, on January 8, 1900, authorized the release of these contractors from further obligations to complete the work, with the understanding that a reduction of \$1,000.00 be made from their final voucher, said sum being the approximate value of the unfinished work covered in their contract. The final voucher on regular contract, amounting to \$39,362.10, was presented to the Board on February 21st (page 6306) and referred to the Committee on Engineering, and on March 7th (page 6327), was passed by the Board. The final certificate of the Chief Engineer appears on page 6328. On August 29 (page 6713), the Board authorized the reduction of Griffiths & McDermott's bond on this contract from \$20,000.00 to \$2,000.00.

In addition to the work shown on the regular voucher issued during the year to Griffiths & McDermott, the following labor and material were furnished by them under the "extra work" clause of their contract:

<i>File No.</i>	<i>Nature of Work.</i>	<i>Amount.</i>
3718	140 barrels "Wolverine" cement at \$2.08.....	\$ 291 20
	90 yards sand at \$1.10.....	99 00
		<hr/> \$ 390 20
3723	Cutting and removing timbers in setting girders.....	\$ 330 58
	Cutting timber for arches and removing same to surface.....	671 70
	Use of derrick and holst.....	104 00
	Running salamanders and drying out arches.....	393 06
	General work.....	244 53
	Moving and repairing derrick.....	64 06
	Tearing up, shoring and relaying roadway.....	1,882 01
	Construction of wing walls joining box girders.....	117 89
	Repairs and watchman C. & A. Building.....	266 73
	Construction of platform around Jackson Street Bridge Pier.....	77 58
	Construction of platform around Adams Street Bridge Pier.....	79 81
	Repairing and relaying roadway crossing for Penna. Co.'s tracks.....	42 25
	Repairing water service pipe at Jackson Street Bridge.....	7 15
	Constructing man holes.....	10 82
	Rehandling girders account substructure delays.....	178 09
	General work.....	204 02
	Extra concreting.....	392 01
	Covering concrete with manure.....	38 89
	Extra back walls over and along tunnel system of girders.....	81 07
	Loading girders at 31st Street yard.....	4 66
	Heating sand and water and salting water for concrete.....	43 04
	Plastering arches, back walls and girder seats.....	452 86

<i>File No.</i>	<i>Nature of Work.</i>	<i>Amount.</i>
	Cutting and moving timber in placing arch forms.....	21 09
	Moving tools, cement, etc.....	16 84
		<hr/> 5,724 54
3798	470.32 cubic yards crushed stone.....	517 35
3956	Rent of plant and tools.....	350 00
3962	92.48 cubic yards crushed stone.....	101 73
	<b>Total.....</b>	<hr/> <b>\$ 7,083 82</b> <hr/>

The following vouchers were issued during the year on account of miscellaneous work in connection with the by-pass, the largest part of which was done by the Sanitary District on force account and consisted of cleaning up the odds and ends of the work, which included the uncompleted portion of Griffiths & McDermott's contract:

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
3687	Isham Randolph, Chief Engineer, pay rolls.....	\$ 1,171 26
3722	Isham Randolph, Chief Engineer, taking up cables at Van Buren Street bridge .....	\$22 75
	Isham Randolph, Chief Engineer, gas used at C. & A. freight office..	15 00
		<hr/> 37 75
3729	Isham Randolph, Chief Engineer, pay rolls.....	1,350 56
3773	Isham Randolph, Chief Engineer, pay rolls.....	926 18
3803	Isham Randolph, Chief Engineer, pay rolls.....	1,773 14
3807	Isham Randolph, Chief Engineer, gas used at C. & A. freight office..	\$29 20
	Isham Randolph, Chief Engineer, labor and pipe at Metropolitan water tunnel.....	10 42
	Isham Randolph, Chief Engineer, freight on cement.....	16 89
		<hr/> 56 51
3837	Isham Randolph, Chief Engineer, pay rolls.....	1,420 73
3860	Isham Randolph, Chief Engineer, pay rolls.....	818 87
3969	Isham Randolph, moving C. & A. freight offices.....	68 00
4064	Isham Randolph, Chief Engineer, freight on girders.....	\$58 14
	Isham Randolph, Chief Engineer, empty barrels.....	4 00
	Isham Randolph, Chief Engineer, machine oil.....	2 20
	Isham Randolph, Chief Engineer, services of machinist.....	1 00
	Isham Randolph, Chief Engineer, cinders.....	4 00
	Isham Randolph, Chief Engineer, repairs to water supply C. & A. freight office.....	9 24
	Isham Randolph, Chief Engineer, repairs to gas supply C. & A. freight office.....	2 70
	Isham Randolph, Chief Engineer, repairs to Met. water tunnel....	11 03
	Isham Randolph, Chief Engineer, freight on girders.....	4 00
	Isham Randolph, Chief Engineer, express charges on wood pulp....	12 00
	Isham Randolph, Chief Engineer, switching charges on girders....	5 00
	Isham Randolph, Chief Engineer, repairs to tools.....	1 50
	Isham Randolph, Chief Engineer, oil.....	6 77
		<hr/> 121 58
4115	Isham Randolph, Chief Engineer, repairs to air pipe and cable at Metro- politan water tunnel .....	9 77
4173	Isham Randolph, Chief Engineer, empty barrels.....	\$ 4 00
	Isham Randolph, Chief Engineer, pay rolls.....	1 50
		<hr/> 5 50
4275	Isham Randolph, Chief Engineer, moving telephone C. & A. freight office..	10 65
4307	Isham Randolph, Chief Engineer, telephone rental C. & A. freight office....	12 09
4325	Isham Randolph, Chief Engineer, pay roll.....	224 50
4356	Isham Randolph, Chief Engineer, lumber.....	\$ 5 81
	Isham Randolph, Chief Engineer, switching charges.....	5 00
	Isham Randolph, Chief Engineer, teaming tools.....	1 50
	Isham Randolph, Chief Engineer, screenings and sand.....	8 80
		<hr/> 21 11
4385	Isham Randolph, Chief Engineer, repainting by-pass.....	\$ 1 96
	Isham Randolph, Chief Engineer, paving Jackson Street by-pass....	1 00
		<hr/> 2 96

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
3689	Pennsylvania Co., use of cars account hauling girders.....	227 00
3797	Pennsylvania Co., replacing bumping post.....	35 00
4382	Pennsylvania Co., repairs to freight house, etc.....	720 00
3691	H. O. Stone, rent for C. & A. freight office.....	250 00
3774	H. O. Stone, rent for C. & A. freight office.....	250 00
3728	Wm. Trinkaus, Record Clerk, moving C. & A. freight office.....	53 35
3772	Wm. Jenkinson, lumber.....	64 88
3806	Geo. M. Huss, loading and unloading girders, etc.....	265 85
3831	Columbia Window Cleaning Co., cleaning windows C. & A. freight office...	32 00
3832	H. Channon Co., canvas, etc.....	37 44
3833	August Zander Co., plastering west wall of by-pass.....	143 36
3835	August Zander Co., wire lathing at bottom of girders.....	137 20
3857	August Zander & Co., plastering C. & A. freight office.....	238 56
3900	August Zander Co., sundry plastering.....	340 86
3955	August Zander Co., rent of salamanders.....	98 00
3834	Simpson Bros. Co., painting with pitch, etc.....	354 12
3836	R. B. Crouch, oils.....	63 23
3854	R. B. Arnold, coal and coke.....	288 18
3960	R. B. Arnold, coal and coke.....	130 25
3855	The Krug Sand Co., sand.....	74 00
3961	The Krug Sand Co., sand.....	18 00
4047	The Krug Sand Co., sand.....	66 00
3856	Jos. Stockton Co., moving C. & A. freight office.....	55 00
3858	Brownell Improvement Co., sand.....	157 74
3864	L. P. Friestedt, drumming foundations C. & A. freight house.....	350 00
3865	C. & A. R. R. Co., elevator and telephone service, C. & A. freight office....	198 26
3959	C. & A. R. R. Co., elevator and telephone service, C. & A. freight office....	91 00
4048	C. & A. R. R. Co., elevator services and moving C. & A. freight office.....	85 74
3866	E. E. Moberly & Co., lumber account repairing C. & A. freight house.....	303 04
3868	Ft. Wayne Foundry & Machine Co., manhole covers.....	112 50
3898	S. J. Stebbins Co., hardware.....	122 54
3899	Thos. Moulding Co., cement.....	2,010 41
3952	McDonnell Odometer Co., rent of canvas.....	15 00
3953	J. H. Winterburn Plumbing Co., plumbing, etc., C. & A. freight house.....	469 45
3954	Garden City Sand Co., cement.....	75 00
3958	Met. W. S. Elevated Ry. Co., compensation for water cut off from tunnel.	6,625 00
4010	Meacham & Wright, cement.....	19 00
4011	American Strawboard Co., prepared pulp.....	50 00
4012	Henry Valk, Jr., painting, etc., C. & A. freight house.....	168 90
4182	Arthur Frantzen Co., cables.....	142 00
4186	Geo. D. Milligan Co., painting.....	82 00
4363	Heath & Milligan Manfg. Co., painting materials.....	22 17
4384	Dolese & Shepard Co., screenings.....	24 30

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\$23,097 44

Less cash received from Toledo Bridge Co., account sale of lumber.....\$759 30

Less cash received from Phallin & Bennett, account sale of timber..... 150 00

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909 30

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Total.....\$22,188 14

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A summary of the earnings on by-pass work for the year 1900 is as follows:

Lydon & Drews Co.....	\$ 86,885 42
Griffiths & McDermott.....	43,738 58
Miscellaneous.....	22,188 14

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Total.....\$152,812 09

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The status of the by-pass work at December 31st was as follows:

Estimated cost of work (for analysis of same see files of Engineering Dept.)....\$541,103 19  
Amount earned to January 1, 1901:

Lydon & Drews Co.....	\$364,890 89
Griffiths & McDermott.....	146,812 03
Miscellaneous firms.....	29,900 27
	<u>541,103 19</u>

Unpaid vouchers and balance required to complete.....	<u>2 96</u>
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#### MAIN CHANNEL.

As was stated in the Annual Report of this Department for the year 1899, the Main Channel would have to be filled with water admitted via the collateral channel. At the beginning of the year 1900, the construction of the Main Channel was practically completed and, on January 2d, the inlet sluice at the mouth of the collateral channel was opened and the water rushed into the Main Channel and continued to flow until the 14th, at which date it rose to lake level. On January 17th, the Board of Trustees lowered the Bear Trap Dam of the Controlling Works at Lockport, thereby connecting the water of the Main Channel with the Desplaines River and affording an outlet for the sewage of Chicago. The message of President Boldenweck in reference to the permit of Governor Tanner for the opening of the Main Channel appears in the Proceedings for January 17th (pages 6237-8). The official record of the opening of the Main Channel appears in the Proceedings of the same date (page 6240).

Section "O"—McMahon & Montgomery Co. et al., Contractors.

At the time these contractors were given a final estimate for work done on this section, they filed a new bond in the sum of \$25,000, for the completion and unwatering of the section at a later date. Circumstances were such, however, that other contractors were called in to do the work and, as the water had been turned into the Main Channel, thereby obviating the necessity for unwatering the section, the Board, on April 11th (pages 6402-3), released the surety on this bond.

On July 18th (pages 6688-9), the Board made a final settlement with Hayes Bros. for the work done in the year 1899 of excavating the earth remaining in the abandoned right of way of the Chicago, Madison and Northern Railway Company. In this settlement it was stipulated that these contractors were to take out the balance of the material at or near the intersection of Sections "N" and "O," approximating 48,000 cubic yards, at 35 cents a cubic yard; that

they should give a bond to the District in the sum of \$16,000.00 for the faithful performance of the said work; and that the Sanitary District should pay these contractors the 15 cents per cubic yard withheld from payment on account of the non-fulfillment of the order to excavate the above mentioned railway company's right of way on contract time, in lieu of all claims and demands that they may have had against the Sanitary District on their section. Hayes Bros. accepted these terms and, on August 29th (page 6700), President Boldenweck reported that he had approved their bond for \$16,000.00 and had paid them \$8,886.90 (File No. 4112). No work was done by these contractors during the year toward removing the 48,000 cubic yards above mentioned.

The final notes for the excavation done by the McArthur Bros. Company in the year 1899 under the order of the Chief Engineer, which fixed the price at 70 cents per cubic yard, were not completely checked until the year 1900. The amount vouchered in 1900 was 5,515 cubic yards, representing an earning of \$3,860.50 (File No. 3849). Of the total amount of material excavated by this company at the 70 cent price, 54,090 cubic yards were hauled an average of 700.21 feet farther than was stipulated in the order covering this work. For this extra haul, one cent per yard for each one hundred feet was allowed, making an earning of \$3,787.44 on this account (File No. 3849).

The McArthur Bros. Company continued the excavation, by force account, of the material under the Pan Handle trestles, completing the work in the month of January. Two vouchers were issued on this account during the year—one for \$5,000.00 (File No. 3534) and the final for \$2,112.93 (File No. 3892).

On June 12th, the McArthur Bros. Company transmitted a communication to the Committee on Engineering, requesting compensation to the amount of \$62,973.95, for the extra cost involved in excavating under the Pan Handle trestles under the order of the Chief Engineer, which fixed the price



at 70 cents per cubic yard. This claim was referred to the Chief Engineer for adjudication and, on June 20th (page 315 of his letter book), he reported back to the Committee stating that from all the evidence at hand, the excavation completed under his order had cost the contractor more than the price fixed by him, but that he was not prepared to say how much more than 70 cents the work did actually cost. On July 2d, the Committee on Engineering again referred the matter to the Chief Engineer and, on July 7th (page 362 of his letter book), he reported on same and awarded the company \$35,000.00 in full settlement and liquidation of all claims arising and growing out of his order dated August 16, 1899. On July 11th (page 6655), the Board authorized the payment to the McArthur Bros. Company of that amount (File No. 4193).

Green's Dredging Company continued the excavation of the collateral channel, completing the work about the end of January. During the year this company excavated 9,960 cubic yards of material at 27 cents per cubic yard, an earning of \$2,689.20 (File No. 3737). In addition to the excavation at a fixed price per cubic yard, this company did sundry force account work in the vicinity of the sluice gates, at a cost to the District of \$1,770.00 (File No. 3737).

The inlet sluice was opened by the use of explosives and the material was supplied by Hayes Bros. at a cost of \$52.01 (File No. 3735). An item of \$10.74, for labor in connection with the inlet sluice, was paid by Isham Randolph and vouchered to his account (File No. 3722). An item of \$20.00 for teaming, etc., done by Hayes Bros. in connection with the pumping plant on this section, was also paid by Isham Randolph and vouchered to his account (File No. 3807).

On May 31st (pages 6592-3), the Board

authorized the advertisement for proposals for rip-rapping the earth banks of the Main Channel for the purpose of protecting same. On July 11th (page 6664), the Chief Engineer transmitted specifications for this work, which were referred to the Committee on Engineering with power to act. On October 31st (page 6282), the Board adopted a report of the Committee on Engineering which advised the making of a test of rip-rap work for future purposes, and directed the Chief Engineer to construct 100 feet of said rip-rap work on Section "O." On December 5th (page 6902), the Board confirmed the action of the Chief Engineer, who reported that arrangements had been made with the Western Stone Company for the supply of the necessary stone and with the Lydon & Drews Company to do the work. The work was done in the month of December, but no vouchers were issued in the year 1900 on this account.

A summary of the earnings for the year 1900 for work done on this section, exclusive of temporary and permanent bridges, is as follows:

McArthur Bros Company.....	\$49,760 87
Green's Dredging Company.....	4,468 20
Hayes Brothers .....	52 01
Isham Randolph .....	30 74
Total.....	\$54,311 82

As was stated in the last Annual Report of this Department, the traffic of the C. T. T. R. R. Co. at the Pan Handle crossing was transferred to the trestle constructed for the C. J. Ry. Co. in the year 1898. This gave the C. T. T. R. Co. but one trestle to carry on operations at that point. The increasing traffic of this company necessitated the construction of a new trestle and the work was begun in the month of January, 1900, and finished at the end of March. The following schedule shows the cost of constructing this structure:

File No.	Firm and Nature of Voucher.	Amount.
3764	Continental Lumber Co., 1,760 feet piles at 16 and 18 cents.....	\$ 327 30
3791	Continental Lumber Co., 1,960 feet piles at 18 and 19 cents.....	425 60
3948	Continental Lumber Co., 690 feet piles at 16 and 19 cents.....	142 90
		\$ 895 80
3765	The Marsh & Bingham Co., 29,820 feet lumber from \$10.00 to \$33.00 per M.....	\$ 925 26
3846	The Marsh & Bingham Co., 12,096 feet lumber from \$16.50 to \$26.00 per M.....	237 47
3924	The Marsh & Bingham Co., 2,160 feet lumber at \$19.00 per M.....	41 04
3949	The Marsh & Bingham Co., 16,085 feet lumber from \$10.00 to \$28.00 per M.....	411 97
		1,615 74
3790	Edw. Hines Lumber Co., 1,477 feet lumber at \$25.00 per M.....	36 93

<i>File No.</i>	<i>Firm and Nature of Voucher.</i>	<i>Amount.</i>
3767	Continental Bolt & Iron Works, hardware.....	\$ 260 49
3794	Continental Bolt & Iron Works, hardware.....	155 25
3893	Continental Bolt & Iron Works, hardware.....	83 98
3926	Continental Bolt & Iron Works, hardware.....	59 00
3950	Continental Bolt & Iron Works, hardware.....	79 15
		<hr/>
		637 87
3768	Geo. M. Huss, labor.....	\$2,143 05
3830	Geo. M. Huss, labor.....	1,294 30
3848	Geo. M. Huss, labor.....	919 88
3906	Geo. M. Huss, labor.....	774 70
		<hr/>
		5,181 93
3736	Hayes Brothers, coal.....	24 20
3891	Weaver Coal Co., coal.....	30 30
3793	McArthur Brothers Co., coal and rental of boiler.....	\$ 522 87
3925	McArthur Brothers Co., coal and rental of boiler.....	205 00
4007	McArthur Brothers Co., repairs to boiler.....	229 40
		<hr/>
		957 27
4175	Union Switch & Signal Co., interlocking system.....	558 02
3722	Isham Randolph, paid for hardware.....	\$ 10 25
3807	Isham Randolph, paid for hardware.....	9 80
4064	Isham Randolph, paid for hardware and coal.....	30 36
		<hr/>
		50 41
		<hr/>
Total.....		\$ 9,938 47

Further purchases and work done in connection with the several trestles at the Pan-Handle crossing are shown in the following schedule:

<i>File No.</i>	<i>Firm and Nature of Voucher.</i>	<i>Amount.</i>
3648	Geo. M. Huss, redriving piles and reconstructing trestles.....	\$5,090 04
3717	Geo. M. Huss, redriving piles and reconstructing trestles.....	1,647 41
4008	Geo. M. Huss, repairs to trestles.....	256 75
		<hr/>
		\$ 6,994 20
3981	Benezette Williams, wire rope for floating boom.....	15 50
4041	Dunham Towing & Wrecking Co., pulling piles, etc.....	456 75
4042	Isham Randolph, paid for labor.....	\$ 36 35
4115	Isham Randolph, paid for labor.....	49 78
4173	Isham Randolph, paid for labor and hardware.....	130 93
4275	Isham Randolph, paid for lumber.....	14 01
4385	Isham Randolph, paid for labor.....	13 62
		<hr/>
		244 69
4075	Standard Oil Co., oil.....	51 00
		<hr/>
Total.....		\$ 7,762 14

The three railroad companies in interest at the Pan Handle crossing had vouchered to their account numerous bills chargeable to the temporary trestles. A statement of the amounts vouchered during the year 1900 to all parties on account of these trestles is as follows:

Continental Lumber Company, piles.....	\$ 895 80
The Marsh & Bingham Company, lumber.....	1,615 74
Edward Hines Lumber Company, lumber.....	36 93
Continental Bolt & Iron Works, hardware.....	637 87
Geo. M. Huss, labor.....	12,126 13
Dunham Towing & Wrecking Co., labor.....	456 75
Weaver Coal Co., coal.....	30 30
Hayes Brothers, coal.....	24 20
McArthur Bros. Company, coal, rental of boilers, etc.....	957 27
Standard Oil Company, oil.....	51 00
Union Switch & Signal Co., interlocking system.....	558 02
Benezette Williams, wire rope.....	15 50
Isham Randolph, sundry payments.....	295 10

C. T. T. R. R. Co., miscellaneous expenses.....	4,915 35
C. J. Ry. Co., miscellaneous expenses.....	3,784 70
P., C., C. & St. L. Ry. Co., miscellaneous expenses.....	4,038 87
	<u>\$30,439 53</u>
Less cash received from the FitzSimons & Connell Co. for 1,475 feet piles at 12c.	177 00
Total.....	<u><u>\$30,262 53</u></u>

The condition of work on this section at December 31, 1900, was as follows:

Narrow Channel and original basin, prism, 1,372,191 cubic yards at 21 cents..	\$288,160 11
Narrow Channel and original basin, prism, 59,246 cubic yards at 55 cents (including extra cost of \$220.92).....	32,806 22
Narrow Channel and original basin, prism, 52,260 cubic yards at 70 cents.....	36,582 00
Narrow Channel and original basin, prism, 21,039 cubic yards at 35c (estimated)	7,363 65
Enlargement of basin, prism, 54,840 cubic yards at 21 cents.....	11,516 40
Enlarged channel east of Pan Handle bridge, prism, 54,269 cubic yards at 21c..	11,396 49
Enlarged channel under Pan Handle bridge, prism, 2,113 cubic yards at 21 cents	443 73
Enlarged channel under Pan Handle bridge, prism, 9,624 cubic yards at 45 cents	4,330 80
Enlarged channel under Pan Handle bridge, prism, 21,880 cubic yards at 70 cents	15,316 00
Enlarged channel west of Pan Handle bridge, prism, 18,970 cubic yards at 21c..	3,983 70
Surface ditches, 3,766 cubic yards at 21 cents.....	790 86
Grading and removing temporary roadways, 10,225 cubic yards at 21 cents.....	2,147 25
Main Channel excavation to—15 C. C. D. (force account).....	14,112 93
Main Channel excavation (extra compensation on 70-cent work).....	35,000 00
Extra haul of material.....	3,787 44
Collateral Channel (less 8,000 cubic yards of spoil not removed at 2 cents), 104,514 cubic yards at 19.9 cents.....	20,638 29
Collateral Channel, 28,660 cubic yards at 27 cents.....	7,198 20
Collateral Channel and Inlet sluice (force account).....	5,471 83
Pumping plant.....	4,657 80
Western Avenue temporary bridges.....	13,021 38
Pan Handle temporary bridges.....	151,991 53

Total estimated cost of Section.....	\$670,716 61
Amount earned to January 1, 1901.....	<u>643,352 96</u>

Unfinished work:

Excavation, 21,039 cubic yards at 35 cents.....	\$ 7,363 65
Prospective charges account Pan Handle temporary bridges.....	20,000 00

	<u>\$ 27,363 65</u>
Unpaid vouchers.....	13 62

Balance required to complete section.....	<u><u>\$ 27,377 27</u></u>
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*Section "N"—Hayes Brothers et al., Contractors.*

The force account work done by these contractors under the old Kedzie Avenue crossing was completed at the end of November, 1899. The work of excavation at fixed prices per cubic yard was carried on until the latter part of January, at which time the work was flooded out and the removal of the plant from the section was begun. The final voucher for this section shows the following items as having been vouchered for the year 1900:

Excavation, 3,342 cubic yards at 23 cents.....	\$ 768 66
Excavation, 1,730 cubic yards at 65 cents.....	1,124 50
Excavation, 2,988 cubic yards at \$1.00.....	2,988 00
Total.....	<u><u>\$4,881 16</u></u>

Several items of extra work done by these contractors were vouchered during the year, a schedule of which is as follows:

<i>File No.</i>	<i>Nature of Work.</i>	<i>Amount.</i>
3643	Removing 948 lineal feet old piles from C., M. & N. R. R. Co.'s bank at 20 cents.....	\$189 60
	Changing plane of Main Channel at east end of section.....	259 02
		<hr/> \$ 448 62
3734	Finishing Main Channel west of C., M. & N. R. R. Co.'s old right of way.....	\$274 20
	Grading roadway between Kedzie Ave. and Collateral Channel.....	724 41
		<hr/> 998 61
	Total.....	<hr/> <hr/> \$1,447 23

The settlement effected with Hayes Brothers by the Board on July 18th, which is referred to under Section "O," covered this section also and final payment for work done was made upon condition that all claims that the contractors may have had against this District be considered null and void. Hayes Brothers accepted this condition and on August 29th (page 6700), President Boldenweck reported to the Board that he had paid them the amount shown on the final voucher of the Chief Engineer, namely, \$21,718.62 (file No. 4196). Of this amount, \$16,243.40 is a charge against the section proper, the balance, namely, \$5,475.22, is for hauling material to Douglas Park and Southwest Boulevard and is a charge against the Southwest Boulevard Bridge. This item will be treated under the head of Bridges.

The condition of work on December 31st was as follows:

Excavation, prism, 1,043,659 cubic yards at 23 cents.....	\$240,041 57
Excavation, prism, 24,163 cubic yards at 35 cents (estimated).....	8,457 05
Excavation, prism, 7,329 cubic yards at 65 cents.....	4,763 85
Excavation, prism, 7,988 cubic yards at \$1.00.....	7,988 00
Excavation, prism, 22,304 cubic yards at 85.8 cents (force account).....	19,136 76
Excavation, slides, 4,044 cubic yards at 23 cents.....	930 12
Excavation, revetment, 370 cubic yards at 23 cents.....	85 10
Excavation, surface ditches, 748 cubic yards at 23 cents.....	172.04
Kedzie Avenue roadway.....	810 03
Removing obstructions at C., M. & N. R. R. Co.'s right of way.....	448 62
Extra cost leveling off Main Channel.....	274 20
Grading roadway between Kedzie Avenue and Collateral Channel.....	724 41
The A., T. & S. F. Ry. Co.'s temporary bridge.....	3,600 69
Total estimated cost of section.....	<hr/> \$287,432 44
Amount earned and paid to January 1, 1901.....	278,975 39
Unfinished work and balance required to complete.....	<hr/> \$ 8,457 05

*Section "M"—The Heidenreich Company, Contractor (Charles E. Schlytern, Assignee).*

The regular contract work on this section was practically completed in the year 1895 and the final voucher was rendered October 31, 1896. The items comprising the entire work on this section are as follows:

Excavation, prism, 717,650 cubic yards at 21.7 cents.....	\$155,730 05
Excavation, surface ditches, 1,086 cubic yards at 21.7 cents.....	430 96
Excavation, slides, 8,544 cubic yards at 21.7 cents.....	1,854 03
Pumping plant (expenditures for the year 1890).....	4,220 16
Total cost of section.....	<hr/> \$162,235 22
Amount earned and paid to January 1, 1901.....	162,235 22

*Section "L"—The Heidenreich Company, Contractor (Charles E. Schlytern, Assignee).*

This company practically finished its work in the year 1895 and a final voucher was rendered on November 9, 1896.

In the last annual report of this Department, under the head of "Section K," it was stated that 3,426 cubic yards of material was left in the prism of that section. Strictly speaking, the amount lies in Section "L," at the intersection of Sections "L" and "K" and should enter into the cost of the section here treated. Besides this quantity, about 8,000 cubic yards of material lies at the west end of this section, which was dumped into the channel by the Belt Railway Company in order to strengthen its crossing at that point, which had been weakened on account of a slide of the embankment in the year 1895.

The condition of work on December 31st was as follows:

Excavation, prism, 1,089,922 cubic yards at 19.7 cents.....	\$214,714 63
Excavation, prism, 3,426 cubic yards at 35 cents (estimated).....	1,199 10
Excavation, surface ditches, 3,145 cubic yards at 19.7 cents.....	619 57
Excavation, slides, 9,913 cubic yards at 19.7 cents.....	1,952 86
Excavation, filling, etc., 8,000 cubic yards at 35 cents (estimated).....	2,800 00
Total cost of section.....	\$221,286 16
Amount earned to January 1, 1901.....	217,287 06
Unfinished work and balance required to complete.....	\$ 3,999 10

*Section "K"—Christie & Lowe, Contractors.*

On February 4th (pages 6279-80), the Board released the bond on the contract for this section.

On October 17th (pages 6800-1), the Board directed the Chief Engineer to cause a railroad track to be laid for the Lufkin Stock Yards and Feeding Company, said track to be 1,500 feet in length and connecting with the Belt Line and running west along the right of way of the Sanitary District. Specifications for this work were prepared, and on December 19th (page 6918), the Board authorized the advertisement for proposals. No bids were received in the year 1900.

The following items were vouchered during the year in connection with the removal of the first trestle constructed for the use of the Belt Railway Company of Chicago:

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
3681	Geo. M. Huss, removal of timber, 111,083 feet at \$3.00 per M.....	\$333 25
	Removing dam, loading timber, etc. (force account).....	78 87
		—————\$412 12
3712	Green's Dredging Co., pulling and cutting off piles (force account).....	116 50
Total.....		\$528 62

The second temporary trestle for the Belt Company was completed in the month of January and used until the month of December, at which time the permanent bridge was put into service. On December 5th (page 6901 of the Proceedings), the Chief Engineer reported to the Board that he could hire the necessary outfit for the removal of this trestle at the rate of \$75.00 per day. The matter was referred to the Committee on Judiciary with power to act. This committee authorized the Chief Engineer to have the work done, and on December 7th (page 316 of his letter book), he ordered the Green's Dredging Company to remove the trestle, to pull the piles and to transport all of the material taken from the structure to the Robey Street yards of this District. The work was begun in the same month, but was not completed during the year.

The following schedule shows the items vouchered during the year on account of this trestle:

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
3681	Geo. M. Huss, placing timber in structure, 21,598 ft. at \$8.00 per M.	\$172 78
	Less 200 feet piles driven (overcharge in 1899) at 16 cents.....	32 00
		<hr/> \$140 78
4078	Geo. M. Huss, repairs.....	340 45
		<hr/> \$ 481 23
3789	McArthur Bros. Co., labor, material and tools.....	\$183 14
	McArthur Bros. Co., use of engine.....	65 00
		<hr/> 248 14
3889	The Belt Railway Co. of Chicago, sundries.....	5,063 94
3946	J. A. Fischer, building boom.....	26 10
4038	American Engineering & Construction Co., building boom.....	48 00
4040	Continental Bolt & Iron Works, hardware.....	\$ 57 23
4111	Continental Bolt & Iron Works, hardware.....	60 87
		<hr/> 118 10
4376	Green's Dredging Co., removal of trestle.....	750 00
3722	Isham Randolph, paid for freight on lumber and piles.....	\$ 23 00
4064	Isham Randolph, paid for freight, hardware, etc.....	26 03
4115	Isham Randolph, paid for labor on boat landing, etc.....	269 23
4173	Isham Randolph, paid for labor and material account boat landing.	327 21
4275	Isham Randolph, paid for light tender.....	97 20
4307	Isham Randolph, paid for light tender.....	84 00
4356	Isham Randolph, paid for light tender.....	67 20
4385	Isham Randolph, paid for light tender.....	67 20
		<hr/> 961 07
Total.....		<hr/> \$7,696 58

The condition of the work on December 31st was as follows:

Excavation, prism, 1,116,200 cubic yards at 25 cents.....	\$279,050 00
Excavation, prism, 31,553 cubic yards at 55 cents.....	17,354 15
Excavation, prism (Section "L"), 733 cubic yards at 55 cents.....	403 15
Excavation, surface ditches, 4,800 cubic yards at 25 cents.....	1,200 00
Excavation, slides, 28,081 cubic yards at 25 cents.....	7,007 75
Outlet boxes for surface ditches.....	41 79
Pulling old piles from Main Channel.....	266 03
Belt Railway Company's temporary trestles (earned).....	21,521 00
Belt Railway Company's temporary trestles (prospective cost).....	6,000 00
Total estimated cost of section.....	<hr/> \$332,843 87
Amount earned to January 1, 1901.....	326,843 87
Unfinished work.....	<hr/> \$ 6,000 00
Unpaid vouchers.....	67 20
Balance required to complete.....	<hr/> \$ 6,067 20

*Section "I"—Christie & Lowe, Contractors.*

The schedule for all the work done on this section is found in the Annual Report for 1896 (page 3833). Total cost of section, \$289,846.00.

*Section "H"—Gahan & Byrne, Contractors.*

The schedule for all the work done on this section is found in the Annual Report for 1899 (see page 20 of the appendix to

the Proceedings for December 26, 1900). Total cost of section, \$336,378.06.

*Section "G"—Gahan & Byrne, Contractors.*

The schedule for all the work done on this section is found in the Annual Report for 1899 (see page 20 of the appendix to the Proceedings for December 26, 1900). Total cost of section, \$402,763.92.

*Section "F"—Gahan & Byrne, Contractors.*

On May 26th (pages 6569-70), the Board released the bond on the contract of Gahan & Byrne for this section.

On February 7th (pages 6284-5), the Committee on Engineering reported on the matters in dispute between the Sanitary District and Ricker, Lee & Co., the original contractors for this section, in which was reviewed the points at issue and the litigation which followed, and recommended that a settlement be made upon the following basis: That both parties release the

other of all claims in connection with Section "F"; that the Sanitary District retain the full amount of the reserved percentage withheld from these contractors for work done, amounting to \$18,390.31; and that the bond of Ricker, Lee & Co. be released from further obligation. The Board adopted the report and concurred in the recommendations. A minority report was presented on this matter on February 14th (pages 6292-94) by Trustees Kelly, Eckhart and Boldenweck.

On May 23d (page 6569), the Board released the surety on the bond of Ricker, Lee & Co.

The revised statement for work done on this section is as follows:

<b>Ricker, Lee &amp; Co.:</b>	
Main Channel prism, 497,763 cubic yards glacial drift at 23% c.....	\$118,218 71
Surface ditches, 1,147 cubic yards glacial drift at 23% c.....	272 41
River diversion prism, 65,308 cubic yards glacial drift at 23% c....	15,510 65
Surface ditches, 1,606 cubic yards glacial drift at 23% c.....	381 43
Levee borrow, 91,320 cubic yards glacial drift at 23% c.....	21,688 50
<b>Gross earnings Ricker, Lee &amp; Co., 657,144 cubic yards at 23% c.</b>	<b>\$156,071 70</b>
Less amount relinquished account settlement.....	18,390 31
<b>Net earnings Ricker, Lee &amp; Co.....</b>	<b>\$137,681 39</b>
<b>Wier, McKechney &amp; Co.:</b>	
Main channel prism, 382,717 cubic yards glacial drift at 29½ c.....	112,901 52
<b>Gahan &amp; Byrne:</b>	
Main channel prism, 186,157 cubic yards glacial drift at 29½ c.....	\$ 54,916 32
Slides, etc., 12,332 cubic yards glacial drift at 29½ c.....	3,637 94
Surface ditches, 2,009 cubic yards glacial drift at 29½ c.....	592 65
Revetment excavation, 23,254 cubic yards glacial drift at 29½ c.....	6,859 93
Rip-rap, 22,413 cubic yards at 45c.....	10,085 85
Main channel prism, 37,448 cubic yards solid rock at 90c.....	33,703 20
<b>Total for Gahan &amp; Byrne.....</b>	<b>109,795 89</b>
<b>McArthur Brothers:</b>	
Spillway excavation, 4,713 cubic yards at 69.9c.....	\$ 3,294 60
Spillway construction .....	17,223 81
Excavation near Spillway, 16,500 cubic yards at 70.62c.....	11,653 09
<b>Total for McArthur Brothers.....</b>	<b>32,171 50</b>
The A. T. & S. F. Ry. Co., raising Santa Fe bridge No. 5.....	5,875 65
<b>Total cost of section.....</b>	<b>\$398,425 95</b>
<b>Amount earned to January 1, 1901:</b>	
By Ricker, Lee & Co.....	\$137,681 39
By Wier, McKechney & Co.....	112,901 52
By Gahan & Byrne.....	109,795 89
By McArthur Brothers .....	32,171 50
By The A. T. & S. F. Ry. Co.....	5,875 65
<b>Total earnings .....</b>	<b>\$398,425 95</b>
Reserved percentage Wier, McKechney & Co.....	\$ 11,859 26
Unpaid vouchers Wier, McKechney & Co.....	7,846.75
<b>Balance required to complete section.....</b>	<b>\$19,706 01</b>

*Section "E"—Halvorson, Richards & Co., Contractors.*

On February 7th (pages 6279-81), the Board reduced the bond on this contract to \$5,000.00.

The last work done by the C. T. T. R. R. Co. in connection with its temporary bridge over the Desplaines River was in the month of January and the total amount vouchered to it on this account was \$357.93 (file No. 3945).

The only change in the condition of this section on December 31st, 1900, from that on December 31st, 1899, is due to the additional vouchers issued to the C. T. T. R. R. Co., as per amount mentioned above. A summary of the status of this section on December 31st, 1900, is as follows (for itemization of quantities and values see Annual Report of this Department for the year 1899, pages 22 and 23 of Appendix to Proceedings for December 26th, 1900):

Streeter & Kenefick contract.....	\$157,564 71
Angus & Gindele contract.....	242,640 38
Halvorson, Richards & Co. contract.....	381,794 76

*Work done by miscellaneous firms:*

Removal of Swift R. R. bridge over I. & M. Canal.....	\$ 260 00
Ballasting Summit highway .....	128 20
C. T. T. R. R. Co.'s temporary bridge, Main Channel.....	7,227 12
C. T. T. R. R. Co.'s temporary bridge, Desplaines River.....	4,840 52
Lyons-Summit temporary bridge, Main Channel.....	4,358 02
	<hr/> 16,813 86

Total cost of section.....	<hr/> \$798,813 69
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*Amount earned to January 1, 1901:*

By Streeter & Kenefick.....	\$157,564 71
By Angus & Gindele.....	242,640 38
By Halvorson, Richards & Co.....	381,794 76
By sundry firms .....	16,813 86
	<hr/> Total earnings .....
	<hr/> \$798,813 69

*Reserved percentage and unpaid vouchers (being balance required to complete):*

Streeter & Kenefick.....	<hr/> \$ 18,998 95
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*Section "D"—E. D. Smith & Co., Contractors.*

The schedule for all the work done on this section is found in the Annual Report for 1897 (page 4600). Total cost of section, \$594,919.83.

*Section "C"—Western Dredging and Improvement Company, Contractor.*

On February 7th (pages 6279-80), the Committee on Finance reported on the advisability of releasing the bond on this contract and, owing to the fact that the Sanitary District is made a party to a claim against this company, recommended that the bond then in force be "continued in full force and effect." This recommendation was concurred in by the Board on the same date. On September 5th (pages 6724-5), the Board approved the reduced

bond of these contractors in the sum of \$10,000.00, said reduction having been authorized by the Board on November 1, 1899 (page 6108).

The schedule for all the work done on this section is found in the Annual Report for 1898 (page 5710). Total cost of section, \$484,259.40.

*Section "B"—Heldmaier & Neu, Contractors.*

The schedule for all the work done on this section is found in the Annual Report for 1897 (page 4601). Total cost of section, \$498,587.76.

*Section "A"—Heldmaier & Neu, Contractors.*

The schedule for all the work done on this section is found in the Annual Report for 1897 (pages 4601-2). Total cost of section, \$917,325.81.



*Section 1—Griffiths & McDermott, Contractors.*

The last schedule shown of all the work done on this section was in the Annual Report for 1897 (page 4602). In the year 1898 an item of \$7.00 was earned on account of the Willow Springs temporary bridge and, in the year 1899, the said bridge was sold for \$75.00. Total cost of section, \$1,356,510.66.

*Section 2—McArthur Bros., Contractors.*

The schedule for all the work done on this section is found in the Annual Report for 1897 (page 4603). Total cost of section, \$940,975.86.

*Section 3—Gulman & Co., Contractors.*

The last schedule shown of all the work done on this section was in the Annual Report for 1897 (page 4603). In the year 1899, \$1,215.85 was earned on account of completing the retaining wall where the pumping plant used during the construction period was located. Total cost of section, \$842,507.20.

*Section 4—McArthur Bros., Contractors.*

The last schedule shown of all the work done on this section was in the Annual Report for 1897 (pages 4603-4). In the year 1899, \$722.70 was earned on account of filling in the sump where the pumps stood during the construction period. Total cost of section, \$1,059,861.36.

*Section 5—The Qualey Construction Company, Contractor.*

The schedule for all the work done on this section is found in the Annual Report for 1897 (page 4604). Total cost of section, \$755,860.92.

*Section 6—Mason, Hoge, King & Co., Contractors.*

The last schedule shown of all the work done on this section was in the Annual Re-

port for 1896 (page 3840). In the year 1899, \$2,822.96 was earned on account of underpinning the foundations of the retaining wall at Stations 1049 and 50. Total cost of section, \$745,016.33.

*Section 7—Mason, Hoge, King & Co., Contractors.*

The schedule for all the work done on this section is found in the Annual Report for 1896 (page 3840). Total cost of section, \$797,495.93.

*Section 8—Mason, Hoge, King & Co., Contractors.*

The excavation of the Santa Fe old right of way was completed in the year 1899, but the final notes were not completely checked until the year 1900. On March 21st (page 6352), the Chief Engineer presented to the Board the final voucher for this work, together with miscellaneous work in connection with the bridges on this section, which was referred to the Committee on Engineering. On April 11th (pages 6615-16), the Board passed the said voucher, amounting to \$7,607.42, of which \$3,664.68 was for Main Channel work, divided as follows: 1,260 cubic yards of rock at \$1.12½, amounting to \$1,417.50, and \$2,247.18 reserve on rock excavation. The balance, namely, \$3,942.74, will be treated under the head of Bridges. The final certificate of the Chief Engineer appears on page 6416.

During the year, these contractors filed certain claims with the Chief Engineer for extra work alleged to have been done during the prosecution of their contract dated August 1, 1898, the total of which amounted to \$4,566.33. On July 18th (pages 6684-5), a report of the Chief Engineer was presented in which he allowed bills covering \$3,332.38, for work done, as follows: Labor and supplies account cleaning out tunnel, \$1,486.02; building coffer-dam and pumping, \$1,840.32; lowering grade of Santa Fe embankment, \$6.04 (File No. 4149). The Board authorized the payment of said amount on the same date. The item of \$6.04 is a charge against The A. T. & S. F. Ry. Co.'s Bridge across the Main Channel and will be found in the schedule of the cost of that bridge.

The condition of work on December 31st was as follows:

	<i>Main Channel.</i>	<i>River Diversion.</i>
Excavation, prism, 43,578 cubic yards glacial drift at 26c.....	\$ 11,380 28	
Approaches to Stevens St. bridge, 6,592 cu. yds. glacial drift at 26c.....	1,713 92	
Excavation, prism, 1,140,408 cubic yards solid rock at 74¼c.....	852,454 98	
Excavation, prism, 5,500 cubic yards solid rock at 63c.....	3,465 00	
Excavation, prism, 14,160 cubic yards solid rock at \$1.12½.....	15,930 00	
Scabbling for wall foundation, 723 cubic yards solid rock at 74¼c.....	540 44	
Retaining wall, 2,874.9 cubic yards at \$3.25.....	9,343 43	
Excavation, prism, 57,766 cubic yards glacial drift at 26c.....		\$ 15,019 16
Approaches to Stevens St. bridge, 136 cubic yds. glacial drift at 26c.....		35 36
Excavation, prism, 99,399 cubic yards solid rock at 74¼c.....		74,300 76
Tunnel and open cut under the A. T. & S. F. old right of way:		
{ Excavation, prism, 121.1 cubic yards solid rock at \$1.50...	181.65	
{ Tunneling, 92 lineal feet at \$6.00.....	552.00	
Mason, Hoge, King & Co.'s settlement of claims, under contract dated July 18, 1892:		
{ Repairing levees.....		83 55
{ Building Stevens Street road.....	209 86	
{ Compensation for failure to furnish right-of way.....	4,718.00	
Agnew & Co.'s relinquishment of claims.....	2,000 00	
Moving cable towers.....	2,992 15	
Moving telegraph lines.....	487 58	
Suppressing fire on and repairing levee.....		245 07
Cleaning tunnel under The A. T. & S. F. Ry. Co.'s right of way...	324 87	
Material for coffer dam.....	240 35	
Stevens Street improvement.....	1,000 00	
Quarrying dimension stone, 1,370.2 cubic yards at \$1.00.....	1,370 20	
Mason, Hoge, King & Co.'s settlement of claims under contract dated August 1, 1898:		
{ Cleaning out tunnel.....	1,486 02	
{ Building coffer dam and pumping.....	1,840 32	
The A. T. & S. F. Ry. Co.'s temporary bridge.....		18,738 80
Stevens Street (Lemont Road) temporary bridge.....	1,115 09	
<b>Totals .....</b>	<b>\$ 913,296 14</b>	<b>\$108,422 70</b>
		108,422 70
<b>Total cost of section.....</b>	<b>\$1,021,718 84</b>	
<b>Amount earned and paid to January 1, 1901.....</b>	<b>\$1,021,718 84</b>	

**Section 9—Halvorson, Richards & Co., Contractors.**

The schedule for all the work done on this section is found in the Annual Report for 1896 (page 3842). Total cost of section, \$819,424.30.

as was reported at that time, with the exception that the item "Western Stone Company's Bridge over Desplaines River, \$15,-983.63," is taken out and transferred under the head of Bridges. Total cost of section, \$1,009,136.70.

**Section 10—E. D. Smith & Co., Contractors.**

The last schedule shown of all the work done on this section is in the Annual Report for 1897 (page 4606) and is the same

**Section 11—Mason, Hoge & Co., Contractors.**

The schedule for all the work done on this section is found in the Annual Report for 1896 (page 3843). Total cost of section, \$841,571.92.

**Section 12—Mason, Hoge & Co., Contractors.**

As was stated in the last Annual Report of this Department, the work of excavating and concreting the clay pockets on this section was completed at the end of the year, but

that all of the items entering into the cost of same were not vouchered. The following vouchers were issued on this account during the year 1900:

Jos. F. Haas, Clerk, pay rolls (file No. 3657).....	\$ 958.23
Heggle Bros., rental of boiler, etc. (file No. 3656).....	28 15
Canal Commissioners, rental of hoisting engine (file No. 3696).....	104 00
Halvorson, Richards & Co., rental of hoisting engine (file No. 3810).....	475 00
Norton & Co., rental of office, etc. (file No. 3811).....	27 77
H. B. Alexander, sundry petty expenses (file No. 3970).....	88 89
Humphrey & Sons, hardware (file No. 4200).....	59 04
Isham Randolph, freight, etc. (file Nos. 3722 and 4064).....	34 14

Gross expenditures during the year 1900.....\$1,775 22

Less cash received for return of empty cement sacks:-

Meacham & Wright.....	\$397 68
The Garden City Sand Co.....	73 97
Thomas Moulding Co.....	202 95
Werden Buck.....	30 00
	<hr/> 704 60

Net expenditures during the year 1900.....\$1,070 62

The condition of the work on December 31st was as follows:

	Main Channel.	River Diverston.
Excavation, prism, 29,309 cubic yards glacial drift at 30¼c.....	\$ 8,865 97	
Approaches to Romeo Highway Bridge, 12,470 cubic yards glacial drift at 30¼c.....	8,772 17	
Temporary road at Romeo, 1,619 cubic yards glacial drift at 30¼c.....	489 75	
Side pockets, 632 cubic yards glacial drift at 30¼c.....	191 18	
Excavation prism, 978,183 cubic yards solid rock at 79¼c.....	775,210 03	
Side pockets, 20,526 cubic yards solid rock at 79¼c.....	16,266 85	
Dry rubble retaining wall, 17.44 cubic yards at \$1.86.....	28 95	
Cement rubble retaining wall, 9,289.5 cubic yards at \$3.50.....	32,443 25	
Excavation, prism, 11,739 cubic yards glacial drift at 30¼c.....		3,551 05
Excavation, prism (Goose Lake, force account), 7,475 cubic yards solid rock at \$1.96.....		8,942 88
Core for levee.....		7,541 87
Romeo Highway Improvement, Daniel Sullivan contract.....		1,732 72
Temporary roadway at Romeo.....	392 54	
Clay pocket work by District (force account):		
Excavation, 4,061 cubic yards rock at \$1.00.....	4,051 00	
Concrete, 3,849.19 cubic yards at \$5.00 ½.....	19,285 64	
Romeo Road temporary bridge.....	1,086 87	
Totals.....	\$862,064 20	\$21,768 52
	<hr/> 21,768 52	
Total cost of section.....	\$883,832 72	
Amount earned and paid to January 1, 1901.....	883,832 72	

#### Section 13—Mason, Hoge & Co., Contractors.

The last schedule shown of all the work done on this section was in the annual report for 1896 (pages 3843-4). In the year 1899 \$1,813.00 was earned on account of excavating clay pockets. Total cost of section, \$821,201.19.

#### Section 14—Smith & Eastman, Contractors for Excavation. Campbell & Dennis, Contractors for Retaining Wall.

The work of building a concrete wall at the site of the abandoned pumping plant on

this section was completed in the month of January and the following items were issued in the year 1900 on this account:

<i>File No.</i>	<i>Firm and Nature of Voucher.</i>	<i>Amount.</i>
3638	Shepard Stone Co., crushed stone.....	\$259 49
3658	Fred Boehme, sand.....	123 38
3742	Sears, Humbert & Co., cement.....	382 50
3722	Isham Randolph, paid for freight.....	50 00
3807	Isham Randolph, paid for freight and hardware.....	29 75
Total.....		<u>\$845 12</u>

The condition of work on December 31st was as follows:

**Smith & Eastman:**

Excavation, prism, 166,701 cubic yards glacial drift at 20c....	\$ 33,340 20
Excavation, prism, 213,119 cubic yards glacial drift at 38c....	76,722 84
Excavation, side pockets, 345 cubic yards glacial drift at 20c..	69 00
Excavation, prism, 1,013,396 cubic yards solid rock at 73c....	739,779 08
Excavation, side pockets, 3,029 cubic yards solid rock at 73c....	2,211 17

Total for Smith & Eastman.....\$852,122 29

**Campbell & Dennis:**

Scabbling for retaining wall foundation, 6,371 cubic yards at 38c.\$	2,420 98
Concrete retaining wall, 23,567.8 cubic yards at \$2.74.....	64,575 77
Back filling, 88,129 cubic yards at 14c.....	12,338 06

Total for Campbell & Dennis..... 79,334 81

Concreting gap in retaining wall at site of pumping plant (work done by Sanitary District force account).....

893 50

Total cost of section.....\$932,350 60

Amount earned and paid to January 1, 1901..... 932,350 60

**Section 15—Wright, Mysenberg, Sinclair & Carry, Contractors for Excavation and Retaining Wall.**

The schedule for all the work done on this section is found in the Annual Report for 1897 (pages 4607-8). Total cost of section, \$552,033.46.

**Section 15—Controlling Works—Christie & Lowe and Griffiths & McDermott, Contractors.**

The extra claims of Griffiths & McDermott mentioned in the last Annual Report consisted of 26 items, aggregating \$50,083.37. On March 6th (pages 46-50 of his letter book), the Chief Engineer made a detailed report on these claims and allowed these contractors a total of \$4,063.65. This report was transmitted to the Board at its meeting held March 7th (page 6320) and was referred to the Committee on Engineering. On March 7th (page 6338), the Board authorized the payment of \$4,063.65 to Griffiths & McDermott on condition that the "contractors give a receipt and release

to the District in full of all claims and demands of whatsoever kind or nature which said contractors may have against the District on account of said work." On July 11th (pages 6663-4), the Board rescinded its action of March 7th in reference to demanding of these contractors as a condition to the payment of the amount of claims allowed, a release in full of all claims against the District, and ordered that the amount allowed by the Chief Engineer be paid. This amount was paid these contractors on the same date (File No. 3780).

On March 28th (pages 6359-60), the Board released the sureties on the bond of the contract with Christie & Lowe.

On May 31st (page 6589), the Board directed the Chief Engineer to prepare plans for the housing of the Controlling Works, and proposals were advertised for on June 27th. Plans were prepared for supplying and erecting brick buildings for housing and protecting the machinery of the Bear Trap Dam and for a frame building intended for offices and for the shelter of visitors. On August 29th (pages 6721-2), five bids

were received for the erection of the brick buildings, ranging from \$10,292.00 to \$11,242.00, and five bids for the frame building, ranging from \$5,686.00 to \$7,890.00. These bids were referred to the Committee on Engineering. On September 5th (page 6728), the Board awarded the contract for the brick buildings to John A. Larson, the lowest bidder. On September 19th (pages 6744-5), the Board approved the bond on this contract. The contract bears date of September 12, 1900, and appears on pages 6757-66 of the Proceedings. On September 26th (pages 6776-7), all bids for the erection of the frame building were rejected by the Board.

On October 10th (page 6795), the Board directed the Chief Engineer to "make arrangements with reference to the construction of an additional story to the brick buildings for housing and protecting the machinery of the Bear Trap Dam." Arrangements were made with the contractor for the brick buildings to do this work and, on October 11th (page 157 of his letter book), the Chief Engineer issued the following order to John A. Larson:

"Acting under provisions contained in Section 48 and Paragraph B thereof, I hereby instruct you to build a second story over the machine shop at the south end of the Bear Trap Dam, the same to be built in accordance with plans to be furnished

you from this office which I have had under discussion with you and in all respects in conformity with your said contract dated September 12, 1900.

"For the work covered by this order I fix a sum to be paid you in excess of your previous contract price, of \$1,762.00, this price being \$214.00 less than the figure named to me by you, the reduction being on account of certain railings which were to have been erected on the roof of the machine shop, which will now be unnecessary.

"Please proceed with the work with all possible dispatch."

Work was carried on under the original contract and the above order to the end of the year and \$12,054.00 was earned on these accounts.

On March 7th (page 6328), the Board directed the Chief Engineer to put in condition for travel the roadway between the Lockport Road and the Controlling Works. Arrangements were made with Daniel Sullivan to do this work, together with cleaning up the debris lying around the grounds of the Controlling Works. This work was done in the months of April and May. In October a small amount of grading was required to be done and Dennis Sullivan completed the work at a lump sum cost of \$150.00.

The following items were vouchered on this account:

File No.	Nature of Work.	Amount.
3974	Excavation of roadway, 413 cubic yards at 33 cents.....	\$ 136 29
	Graveling and ballasting roadway, 693 cubic yards at \$1.00.....	693 00
	Back-filling retaining wall at bear trap dam, 700 cubic yards at 50 cents....	350 00
	Grading and graveling roadway and moving lumber, lump sum.....	150 00
	Rolling roadway, 20 hours at 35 cents.....	7 00
4310	Grading roadway, lump sum.....	50 00
Total.....		<u>\$1,386 29</u>

On May 31st (page 6597), the Board authorized the Chief Engineer to have a well dug at the Controlling Works. A place was selected at a point about 50 feet from in front of the machine shop and about 40 feet south of the end of the Main Channel and, on June 20th, Mr. H. B. Alexander, Assistant Engineer in charge of the Lockport Division, made arrangements with Fred Frey to bore a six-inch hole through the solid rock, at \$1.50 per lineal foot. An arrangement was also made with Daniel Sullivan to excavate an eight-foot hole through the back-filling overlying the solid

rock, at a lump price of \$50.00. The work was done in the months of July and August and the well was sunk 135 lineal feet. On September 19th, the Chief Engineer reported to the Committee on Engineering that a chemical analysis had been made of the water in the well and that it was unfit for drinking purposes, and asked authority to sink the well 100 feet deeper. On September 26th (pages 6775-6), the Board authorized the Chief Engineer to deepen the well in accordance with his suggestions to the Committee. No further work was done during the year.

The following vouchers were issued during the year on this account:

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
4217	Fred Frey, boring well, 155 lineal feet at \$1.50.....	\$232 50
4265	Barrett Hardware Co., 40 feet 4-inch pipe at 55 cents.....	11 00
4310	Daniel Sullivan, excavating filling overlying solid rock.....	50 00
Total.....		\$293 50

On July 11th (page 6650), the Chief Engineer sent a communication to the Board in reference to the propriety of constructing a water wheel at the Controlling Works for the purpose of generating electric light and for such other use as the District may have for power at that point. The communication was referred to the Committee on Engineering.

On July 18th (page 6690), the Board approved the recommendation of the Chief Engineer for the construction of a small turbine wheel and the necessary machinery, and authorized him to purchase the materials and to have done, by force account, the work incidental to the installation of same. On October 3d (page 6790), the Chief Engineer reported to the Board that a number of the Trustees wished to have two wheels put in instead of one and inquired whether that number should be placed. The Board authorized the Chief Engineer to purchase and establish the additional wheel.

A force of men was engaged for the prosecution of the preparatory work in the

month of August and carried on operations to the end of the year. This work consisted of the following: The excavation for and concreting and back-filling of a wheel pit; the excavation of a sub-tall race; the extension of the retaining wall from the wheel pit to the concrete arch crossing the sub-tall-race and the back-filling of same; and the excavation of a hole from the wheel bay into the conduit under the machine shop.

On October 24th, the Chief Engineer, representing the Sanitary District, entered into an agreement with the S. Morgan Smith Company for the furnishing of one fifteen-inch vertical left hand McCormick turbine for \$156.00; and for two 39-inch vertical left hand McCormick turbines for \$1,140.00, one of which is intended to be held in reserve and to be used in cases of emergency. These wheels were delivered in the month of December, but no payments were made on this account during the year.

The following schedule shows the vouchers issued on account of water power development work during the year:

<i>File No.</i>	<i>Firm and Nature of Voucher.</i>	<i>Amount.</i>
4158	A. R. Porter, Clerk, pay roll.....	\$ 557 19
4235	A. R. Porter, Clerk, pay roll.....	2,136 81
4284	A. R. Porter, Clerk, pay roll.....	1,514 72
4322	A. R. Porter, Clerk, pay roll.....	4,107 32
4329	A. R. Porter, Clerk, pay roll.....	1,761 21
4387	A. R. Porter, Clerk, pay roll.....	739 50
		<hr/> \$10,816 75
4233	Barrett Hardware Co., hardware.....	\$ 40 60
4265	Barrett Hardware Co., hardware, dynamite, etc.....	56 86
4346	Barrett Hardware Co., hardware, dynamite, etc.....	219 99
4373	Barrett Hardware Co., hardware, dynamite, etc.....	93 53
		<hr/> 410 98
4237	Wm. O'Connell, hardware.....	24 23
4342	Hercules Powder Co., dynamite.....	55 19
4251	H. A. Kettering, sundry supplies and repairs.....	18 95
4266	Thos. F. Ryan, coal.....	22 85
4236	F. Munch, coal.....	\$ 38 48
4285	F. Munch, coal.....	57 18
4311	F. Munch, coal.....	38 30
4347	F. Munch, coal.....	112 87
4359	F. Munch, coal.....	50 47
		<hr/> 297 30

<i>File No.</i>	<i>Firm and Nature of Voucher.</i>	<i>Amount.</i>
4341	Norton & Co., coal.....	107 00
4345	Willcox Bros., lumber.....	46 95
4263	Fred Boehme, sand.....	\$ 280 00
4344	Fred Boehme, sand.....	60 00
		<hr/> 340 00
4343	Western Stone Co., crushed stone.....	\$ 371 90
4371	Western Stone Co., crushed stone.....	388 20
		<hr/> 760 10
4218	Thomas Moulding Co., cement.....	\$ 801 17
4262	Thomas Moulding Co., cement.....	1,273 20
4283	Thomas Moulding Co., cement.....	631 38
		<hr/> 2,205 75
4370	Gahan & Byrne, rental of plant.....	233 50
4282	Smith-Wallace Shoe Co., rubber boots.....	34 24
4231	Isham Randolph, pay roll and freight on cement.....	\$ 54 76
4275	Isham Randolph, freight on machinery and cement.....	146 80
4307	Isham Randolph, freight on coal and cement.....	115 74
4356	Isham Randolph, petty sundries.....	41 45
4385	Isham Randolph, pay roll, supplies, lumber, etc.....	544 78
		<hr/> 903 53
Total.....		<hr/> <hr/> \$16,277 32

At the same time that the work of the water power development was being carried on, a twenty-four feet span concrete arch crossing the sub-tailrace was constructed about ten feet south of the site of the old wooden crossing of the said tailrace. The work was completed in the month of December and the following vouchers were issued on this account:

<i>File No.</i>	<i>Firm and Nature of Voucher.</i>	<i>Amount.</i>
4329	A. R. Porter, Clerk, pay roll.....	\$172 90
4387	A. R. Porter, Clerk, pay roll.....	694 81
		<hr/> \$ 867 71
4372	Willcox Bros. lumber for forms.....	35 50
4358	Fred Boehme, sand.....	122 85
4371	Western Stone Co., crushed stone.....	192 00
4364	Dickinson Cement Co., cement.....	846 40
4385	Isham Randolph, freight on material.....	278 60
		<hr/> \$2,343 06
Total.....		<hr/> <hr/>

In addition to the several classifications of work enumerated above, considerable work was done and material supplied during the year in connection with the parallel motion device, conduit valves, etc., of the bear trap dam. Some work was also done in connection with the roller trains of the sluice gates and of a general character, such as the construction of sidewalks, platforms, water closets, special landing places, etc.

The vouchers issued on these various accounts are as follows:

<i>File No.</i>	<i>Firm and Nature of Voucher.</i>	<i>Amount.</i>
3659	Barrett Hardware Co., hardware.....	\$ 17 84
3745	Barrett Hardware Co., hardware.....	26 43
3818	Barrett Hardware Co., hardware.....	16 85
4099	Barrett Hardware Co., hardware.....	32 40
4127	Barrett Hardware Co., hardware.....	20 48
		<hr/> \$ 114 00
3660	Wm. O'Connell, hardware.....	\$ 21 63
3817	Wm. O'Connell, hardware.....	92 62
3911	Wm. O'Connell, hardware.....	32 36
		<hr/> 146 61
3743	Bates Machine Co., hardware.....	106 61
3814	Henry A. Ketterling, hardware.....	46 15

<i>File No.</i>	<i>Firm and Nature of Voucher.</i>	<i>Amount.</i>
3815	Charles F. Elmes Engineering Works, hardware and labor.....	\$ 323 77
4065	Charles F. Elmes Engineering Works, hardware and labor.....	277 86
		<hr/>
3816	Advance Packing and Supply Co., hardware.....	601 63
3861	Crane Co., hardware.....	129 36
3701	Schaffer & Budenberg, hydraulic gauge and pump.....	67 68
3746	Thos. F. Ryan, lumber.....	130 50
3819	Thos. F. Ryan, lumber.....	\$ 53 11
4098	Thos. F. Ryan, lumber.....	33 09
		<hr/>
		113 27
		<hr/>
		199 47
3730	Jos. F. Haas, Clerk, pay roll.....	\$1,252 95
3967	Jos. F. Haas, Clerk, pay roll.....	752 67
3968	Jos. F. Haas, Clerk, pay roll.....	962 78
		<hr/>
		2,968 40
4161	A. R. Porter, Clerk, pay roll.....	\$ 105 30
4235	A. R. Porter, Clerk, pay roll.....	25 60
4284	A. R. Porter, Clerk, pay roll.....	10 00
4329	A. R. Porter, Clerk, pay roll.....	23 50
		<hr/>
		164 40
3744	The Canal Commissioners, two pike poles.....	\$ 4 00
3813	The Canal Commissioners, use hoisting engine.....	104 00
3876	The Canal Commissioners, use hoisting engine.....	96 00
3914	The Canal Commissioners, use hoisting engine.....	108 00
3999	The Canal Commissioners, use hoisting engine.....	100 00
4094	The Canal Commissioners, use hoisting engine.....	44 00
		<hr/>
		456 00
3971	Daniel Sullivan, sundry labor.....	61 43
4028	Heggle Bros., one second-hand upright boiler.....	130 00
3722	Isham Randolph, paid for machine work.....	\$ 4 90
3807	Isham Randolph, paid for hardware, etc.....	105 99
3969	Isham Randolph, paid for hardware, etc.....	18 58
4064	Isham Randolph, paid for petty sundries.....	65 96
4115	Isham Randolph, paid for repairs.....	6 30
4173	Isham Randolph, paid for hardware.....	4 80
		<hr/>
		206 53
		<hr/>
		<hr/>
Total.....		\$5,528 77

A summary of the amounts earned and issued on vouchers during the year is as follows:

Griffiths & McDermott's claims allowed.....	\$ 4,063 65
Construction of buildings for protection of machinery.....	12,054 00
Improvement of roadway between Lockport road and controlling works.....	1,386 29
Construction of well.....	293 50
Water power plant.....	16,277 32
Concrete arch across sub-tallrace.....	2,343 06
Miscellaneous.....	5,528 77
	<hr/>
Total....	\$41,946 59

The condition of work at the controlling works on December 31st was as follows:

Christie & Lowe:

Foundation excavation, 1,238 cubic yards at 59c.....	\$ 730 42
Concrete, 836.8 cubic yards at \$5.00.....	4,184 00
Lump sum for sluice gates.....	120,000 00
Lump sum for bear trap.....	58,000 00

Extra work covered by orders of the Chief Engineer:

Account completing abutments and shrouds.....	\$2,744 40
Account repainting iron work in bear trap dam.....	978 53
Account down stream leaf.....	330 27
Account anchoring superstructure.....	290 20
Account roller trains on sluice gates.....	46 87
	<hr/>
	4,390 27



## Claims allowed by Chief Engineer:

Hire of watchman, 730 days at \$1.50.....	\$1,095 00
Additional expense caused by having to reorganize after forces were disbanded.....	725 60
Tools provided by reason of removal to other work, necessitated by delay of one year.....	700 00
Increased cost of parallel motion device above cost of design on which bid was based.....	1,969 40
	<u>4,490 00</u>

Total for Christie & Lowe.....\$191,794 69

## Griffiths &amp; McDermott:

Excavation, 8,873 cubic yards at \$2.00.....	\$ 17,746 00
Concrete, 2,878.9 cubic yards at \$3.60.....	10,364 04
Concrete, 2,532.3 cubic yards at \$4.60.....	11,648 58
Concrete, 5,206.1 cubic yards at \$3.00.....	15,618 30
Lump sum for metal and lumber.....	14,200 00
Extra work removing iron (file No. 190).....	231 23
Extra cement furnished (file No. 3445).....	88 10
Claims allowed by Chief Engineer (for itemization of same see page 6339 of Proceedings for the year 1900).....	4,063 65
	<u>73,959 90</u>

Total for Griffiths & McDermott.....\$ 73,959 90

## Classification of work done by sundry firms:

## Account bear trap dam:

Anchoring superstructure.....	\$ 165 40
New cable to weir tubes.....	63 06
Installation of parallel motion device.....	1,822 95
Extras account conduit valves.....	404 83
	<u>2,456 24</u>

## Account sluice gates:

Extras account roller train.....	\$ 176 89
Repainting metal work.....	1,351 37
	<u>1,528 46</u>

Construction of well.....	293.50
Concrete arch bridge over open ditch.....	2,343 06
Shelter houses.....	12,054 00
Improvement of roadway to Lockport Road.....	1,386 29
Water power development.....	16,277 32
Miscellaneous.....	4,771 74
Estimated prospective charges.....	5,000 00
	<u>46,110 61</u>

Total for sundry firms and prospective charges.....\$ 46,110 61

Estimated cost of controlling works.....	\$311,865 20
Amount earned to January 1, 1901.....	306,865 20

Unfinished work.....	\$ 5,000 00
Reserved percentage (John A. Larson).....	332 69
Unpaid vouchers.....	3,323 38

Balance required to complete.....\$ 8,656 07

*Life Saving Apparatus Along Rock Sections.*

After the water had been turned into the Main Channel, it became necessary to devise ways and means to protect the lives of any who might fall into the channel where the walls are vertical. On January 29th the Committee on Engineering authorized the Chief Engineer to purchase material for stringing lines along the rock sections near the surface of the water and for the construction of ladders to be attached to the walls and reaching to the top of same. On May 31st (page 6593), the Board authorized the Chief Engineer to

put in place the lines and ladders wherever it was found necessary. A force was organized for this purpose, work was begun in the month of July and completed in October. The cost of this work is shown in the following schedule:

Material, etc.....	\$6,581 64
Plant.....	925 65
Labor.....	2,164 58
Total cost of life saving device.....	\$9,671 87
Amount earned to January 1, 1901.....	9,666 72
Amount unvouchered.....	\$ 5 15
Unpaid vouchers.....	36 73
Balance required to complete.....	\$ 41 88

#### JOLIET PROJECT.

##### *Section 16—Hayes Bros., Contractors.*

This section was completed in the month of December, 1899, but the checking of the final notes was not finished until the following year.

On March 21st (page 6352), the Chief Engineer transmitted the final voucher (amounting to \$9,961.66) to the Board, which was referred to the Committee on Engineering and, on April 11th (pages 6404-5), was passed by the Board (File No. 3877). The final certificate of the Chief Engineer appears on pages 6404-5 of the Proceedings. That part of the current estimate shown on the final voucher, and which is chargeable to the section proper, is 20,667 cubic yards of material at 39 cents, and represents an earning of \$8,060.13. The balance of the current estimate is chargeable to the Lockport Road and Wire Mills Road Bridges and will be treated under the general head of Bridges. That part of the face of the final voucher chargeable to the section proper amounts to \$8,918.01. The balance is on account of the two bridges just mentioned.

On March 28th (page 6382), a communication from the City Trust, Safe Deposit and Surety Company asking release of the sureties on the bond of the contractors for this section was presented by the Board and referred to the Committee on Engineering. On May 23d (pages 6569-70), the Board authorized the reduction of the bond from \$25,000.00 to \$2,500.00. On June 29th (page 6635), the Board approved the new bond.

In the month of January, these contractors presented claims to the amount of \$54,538.74 for extra compensation on account of the failure of the District to give them the entire right of way at an early enough date

to complete the section on contract time. On March 13th, the Chief Engineer reported to the Board on these claims of which he allowed solid rock price on all of the material excavated between stations 1509+79 and 1521+33 and fixed such price at 70 cents per cubic yard. These contractors had already received the contract price per cubic yard for the material between the above mentioned stations, namely, 39 cents, so that 31 cents per cubic yard was the amount actually allowed on the claims. The total amount allowed was \$15,488.53. This report was referred to the Committee on Engineering on March 14th (pages 6333-4) and, on April 25th (pages 6440-1), the Board ordered said report to be placed on file.

On November 28th (pages 6872-3), the Chief Engineer reported that these contractors refused the award made by him under date of March 13th and that they had made preparations to sue for the original amount asked for. He further stated that, by advice of their counsel, they offered to settle for \$6,333.00 in addition to the amount awarded, and recommended that the additional amount asked for be given as a final adjustment of all claims for work done on Section 16. The Board ordered the payment of the two sums, a total of \$21,821.53 (File Nos. 4332 and 4333).

As was stated in the Annual Report of this Department for the year 1899, a small amount of excavation remained to be done on this section in front of the Controlling Works. This work was done by force account in the month of September at a cost to the District of \$257.60 (File No. 4235). On May 16th, a voucher was passed in favor of Isham Randolph, which included a payment to Hayes Bros. of \$2.80 for removing culvert timbers from the Lockport temporary road in the month of October, 1899 (File No. 3969).

The condition of work on this section on December 31st was as follows:

Excavation, river channel and borrowed material, 202,367 cubic yards at 39c...	\$ 78,923 13
Excavation in front of controlling works (force account).....	257 60
Lockport temporary road.....	1,862 57
Removal of bridge from wire mills road.....	75 00
Settlement of claims by Chief Engineer:	
Excavation, 49,963 cubic yards material between Sta. 1509+79 and 1521+33	
at 31c .....	15,488 53
Amount allowed account final adjustment.....	6,333 00
Wire mills temporary bridge and roadway.....	1,500 00

Total cost of section.....	\$104,439 83
Amount earned and paid to January 1, 1901.....	104,439 83

*Section 17—Heldmaler & Neu, Contractors.*

These contractors continued operations throughout the year under the contract and orders existing on January 1, 1900, and performed the following work during that time on these accounts:

Excavation, solid rock, 9,600 cubic yards at 63 cents.....	\$ 6,048 00
Excavation, earth, 19,200 cubic yards at 29 cents.....	5,568 00
Levee construction, 800 cubic yards at 39 cents.....	117 00
Open ditch, 20 per cent. of lump sum.....	2,150 00
Tail race excavation, 8,011 cubic yards at \$1.43.....	11,455 73
Rip-rapping, 250 cubic yards at 60 cents.....	150 00
Completion of cribbing, 125,000 feet B. M. at \$18.75.....	2,343 75
Sinking and filling cribbing, 2,900 cubic yards at 32 cents.....	928 00
Raising tow-path retaining wall, 360 cubic yards at \$4.80.....	1,728 00
Raising tow-path, 2,510 cubic yards at 30 cents.....	753 00
Concrete for wall near tow-path, 20.4 cubic yards at \$8.85.....	180 54
Construction of boom, 20 per cent. of lump sum.....	1,112 00

Total.....\$32,534 02

The walls of the tail-race showed numerous clay pockets and it was found necessary to excavate and fill them with concrete. On March 27th (page 102 of his letter book), the Chief Engineer issued the following order to Heldmaler & Neu:

"Acting under the provisions of your contract dated April 29, 1898, for the construction of Section 17, and in accordance with the sections thereof setting forth the powers of the Chief Engineer and the sections governing the performance of extra work, I now and hereby request and direct you to excavate the clay from certain pockets in the sides of the tail-race and to replace the same with concrete made in conformity to the following specifications:

"The concrete used in said walls shall consist of two (2) parts cement, seventy (70) pounds per cubic foot; of three (3) parts sand; and of eight (8) parts broken stone. Each cubic yard of said concrete shall contain six and two-tenths (6.2) cubic feet of cement, nine and three-tenths (9.3) cubic feet of sand, and twenty-four and six-tenths (24.6) cubic feet of broken stone, or so much as in combination with the prescribed volumes of cement and sand will make one cubic yard of monolithic stone.

"The stone shall be clean and sound, and no stone which will not pass through a two-inch ring shall be used.

"The cement, sand and stone shall be mechanically mixed and thoroughly incorporated to the satisfaction of the Chief Engineer, and sufficient water to be added thereto to cause the mass to quake slightly under ramming. All to be faced and coped with three (3) inches of mortar, made of Portland cement, proportioned as follows: One part Portland cement, three parts sand.

"The concrete shall be placed in the forms in layers of twelve (12) inches in thickness and shall be compacted by ramming.

"All cement and sand shall conform to the specifications of the Sanitary District in quality and strength, and shall pass the inspection prescribed in the specifications therein set forth.

"(a) *Sand*.—Sand used to be coarse, clean, sharp and free from loam and pebbles.

"(b) *Portland and Natural Cements*.—The best Portland and natural cements shall be used, brand and quality to be sub-

ject to approval by the Chief Engineer, who shall, from time to time, cause such tests to be made as may seem to him proper for determining the quality of the cement which is to be used in the work. The development of tensile strength for Portland cement shall be four hundred (400) pounds per square inch, after having set seven (7) days, and for natural cement one hundred (100) pounds per square inch, after having set seven (7) days. All lumpy, dirty or damaged cement shall be rejected; also damaged and short weight packages. The contractors shall keep on hand a supply of cement equal to the average consumption in the work during a period of ten days, and it shall be protected against rain or dampness, and so stored as to make the procurement of samples for testing easy.

**"Back-filling.**—The space back of the walls at each side of the channel shall be filled with material excavated from the foundations, or borrowed from adjacent spoil banks, in manner and form as follows: All the space between the walls and the spoil bank shall be filled.

"For the work covered by this order, I fix the prices to be paid you as follows:

"For each cubic yard of excavation, one dollar and fifty cents (\$1.50).

"For each cubic yard of concrete made according to specifications hereinbefore recited, eight dollars and eighty-five cents (\$8.85).

"For each cubic yard of back-filling, fifty cents (\$0.50).

"These prices are to cover the entire cost of this District of all materials, forms, labor and every other item of expense entering into the work. The entire work to be completed on or before April 25, 1900."

These contractors accepted the order, but such a small amount of work was done at the time that it should have been completed, that on May 14th (page 214 of his letter book), the Chief Engineer ordered them to abandon the work and to turn over the site to the Division Engineer of the District, Mr. H. B. Alexander, who was ordered to have the work completed by force account. It developed, however, that the District was not properly equipped to do the work and Heldmaier & Neu were allowed to continue and completed same at about the end of June.

The work done on this account was as follows:

<i>File No.</i>	<i>Nature of Work</i>	<i>Amount.</i>
4575	Excavation, 1,296 cubic yards at \$1.50.....	\$ 1,944 00
	Concrete, 950.6 cubic yards at \$8.85.....	8,412 81
	Back-filling, 298 cubic yards at 50 cents.....	149 00
4001	Building coffer-dam account clay pockets (force account).....	115 94
4070	Bull pointing, account placing forms for concreting clay pockets (force account).....	8 05
Total.....		<u>\$10,629 80</u>

On May 31st (pages 6584-5), the Chief Engineer transmitted a report to the Board in which he stated that the time was approaching when the coffer-dams in the Upper Basin must be removed and that preparations should be made to have the work done. The report was referred to the Committee on Engineering and, on July 11th (pages 6652-4), the Board authorized the Chief Engineer to have said coffer-dams removed. Acting under this authority, the Chief Engineer, on July 27th (page 440 of his letter book), issued the following order to Heldmaier & Neu:

"Acting under the authority vested in the Chief Engineer by your contract with the Sanitary District dated April 29, 1898, I hereby request and direct you to proceed with the work of excavating the coffer-dam

north of Dam No. 1, Joliet, upon the following basis: You are to remove all material between the existing coffer-dam and the wheel pits of the Economy Light and Power Company down to the level of the floors of the wheel pits. For this excavation you are to be paid 75 cents per cubic yard for all material which can be removed without quarrying and blasting.

"All material you have to quarry or to blast, you are to be paid \$1.00 per cubic yard. For removing all material within the coffer-dam, or piled against the front and also in front of Dam No. 1, you are to be paid 75 cents per cubic yard. These prices are to cover the entire cost of excavating, removing and depositing the material excavated and removed upon the designated spoil area of the Santa Fe R. R.

Co., as is provided in your contract heretofore recited. This order is issued under the 'extra work' clause of said contract.

"Please proceed with the work as rapidly as possible, subject to such orders as may from time to time be issued by me or the Engineer in charge, regarding rate of progress."

This order was accepted and work was begun in the month of August and continued throughout the year with the following results:

Excavation, earth, 13,800 cubic yards at 75 cents.....	\$10,350 00
Excavation, rock, 500 cubic yards at \$1.00 .....	500 00
Total.....	<u>\$10,850 00</u>

As was stated in the last Annual Report of this Department, the Chief Engineer made, and these contractors accepted, an

award of \$17,500.00 in full settlement of all claims made by them for losses that had grown out of the decree of the Circuit Court of Will County in the year 1898. Of this amount, \$10,000.00 was paid at the time of the acceptance of the award, and \$7,500.00 was agreed to be paid upon the completion of the work on or before October 1, 1899, or otherwise forfeited. Owing to the complications that frequently arose on this section, the progress that was anticipated was not made by these contractors and they were unable to complete the section as agreed upon. On July 18th (pages 6688-9), the Board declared the non-enforcement of the forfeiture and authorized the payment to these contractors of the \$7,500.00 (File No. 4197).

During the year, these contractors performed a large amount of extra work on this section, which was done under the "extra work" and "special provisions" clauses of their contract. A schedule of this work is as follows:

File No.	Nature of Work.	Amount.
3639	Repairing protection crib along towpath.....	\$ 88 84
	Raising, extending and filling crib along tall race.....	872 00
	Extra material used in building temporary cribs.....	1,013 38
	Cable for Ruby Street crib.....	13 80
	Back-filling of tall race crib.....	282 10
	Banking against tall race crib and other extra filling at south end.....	376 19
	Pumping out tall race pit.....	161 33
	Moving mud from space between tall race crib and heel path.....	14 66
	Bracing crib at Ruby Street.....	36 09
	Drilling at towpath crib.....	188 04
	Dredging at old towpath bridge.....	90 00
	Extra rate paid night men.....	164 50
	Bracing tall race crib.....	24 15
	Night watchman at Ruby Street crib.....	38 64
		<u>\$ 3,363 72</u>
3704	Floating boom.....	\$ 7 07
	Filling in trestle at north end of section.....	331 15
	Excavation account anchorage for towpath bridge cable.....	8 99
	Excavation for repairs on towpath wall south of Ruby Street.....	10 45
	Hay account stopping leak in tall race crib.....	56 59
	Cutting holes in tall race crib and lining same.....	43 41
	Material account installation of pumping plant at tall race.....	162 83
	Moving pumping plant to tall race account leak.....	513 72
	Removing crib from mouth of channel.....	946 58
	Extra rate paid night men.....	73 65
		<u>2,154 44</u>
3750	Bracing tall race crib.....	\$ 2 24
	Removing crib at mouth of channel.....	1,065 67
	Stopping leaks at heel path near steel mill.....	638 85
	Repairing tall race crib.....	13 23
	Repairs to machinery in tall race, made necessary by being under water, account leak.....	53 32
	Filling back of towpath wall coping.....	55 80
	Night watchmen on dredge and mud derrick.....	82 80
	Watchman on temporary bridge.....	43 47
		<u>1,955 38</u>

<i>File No.</i>	<i>Nature of Work.</i>	<i>Amount.</i>
3782	Setting up 8-inch pump account leak in tall race.....	\$ 115 60
	Stopping leaks on heel path.....	866 68
	Removing crib from mouth of channel.....	484 84
	Watching and blasting ice near temporary bridge.....	1,036 75
	Clearing ice from tall race.....	86 25
		<hr/> 2,590 22
3827	Rental of pump account pumping out tall race.....	\$ 111 00
	Maintaining and operating 12-inch pump on tall race.....	741 88
	Refitting 8-inch pump on tall race.....	45 09
	Pumping on tall race account leak.....	540 09
	Watching and shooting ice.....	264 72
	Stopping leaks at heel path near steel mills.....	987 29
		<hr/> 2,690 07
3891	Anchoring crib at towpath bridge.....	\$ 45 08
	Watchman on dredge account removing crib.....	74 52
	Watching ice from Ruby Street to E., J. & E. bridge.....	109 99
	Stopping leaks on heel path near steel mills.....	207 20
	Pumping on tall race account leak.....	370 67
	Material, etc., account leaks in tall race crib and levee.....	61 95
		<hr/> 869 41
3917	Loading holes with dynamite under Ruby Street bridge.....	\$ 125 81
	Night watchman on levee at north end of section.....	120 75
	Lumber for bracing towpath coffer dam.....	114 42
	Operating 6-inch pump on tall race account leak.....	44 16
	Materials account moving and refitting 4-inch pump in tall race..	103 50
	Moving channeler and moving and operating 4-inch pump on tall race.....	145 82
	Excavation for wall at east end of temporary bridge.....	46 05
	Cable account temporarily anchoring floating boom.....	94 50
	Removing crib from mouth of channel.....	466 67
	Operating pump account leaks in tall race levee and crib.....	581 82
		<hr/> 1,843 50
3938	Installing piston pump on tall race.....	\$ 305 49
	Pumping at tall race.....	560 34
	Removal of crib at mouth of new river channel.....	1,318 57
		<hr/> 2,184 40
4001	Stopping leaks in crib at old towpath bridge.....	62 97
4070	Pumping at coffer dam at old towpath bridge.....	\$ 27 89
	Stopping leaks at coffer dam at old towpath bridge.....	146 90
	Pumping out tall race.....	146 71
	Stopping leaks in old towpath bridge coffer dam.....	145 52
	Removal of rock fringe at mouth of new river channel.....	25 59
	Removal of rock fringe at mouth of new river channel and back of crib.....	1,373 96
	Pumping out tall race.....	884 00
	Removing extra material along outlet of new river channel.....	487 86
	Pumping out coffer dam at old towpath bridge.....	82 42
		<hr/> 2,820 85
4100	Filling around coffer dam at old towpath bridge.....	\$1,882 11
	Pumping at tall race crib.....	163 50
		<hr/> 2,045 61
4219	Extra dredging account towpath crib.....	526 93
4238	Removing pumps from tall race.....	\$ 63 17
	Removing pumps from tall race.....	76 98
		<hr/> 140 15
4239	Repairing mud boxes and repairing and resetting derrick.....	123 33
4259	Erecting derrick account filling in towpath near Santa Fe bridge..	\$ 231 68
	Cutting through coffer dam and casting near Jackson Street.....	30 00
		<hr/> 261 68
4268	Construction of excess length of boom.....	834 00

<i>File No.</i>	<i>Nature of Work.</i>	<i>Amount.</i>
4286	Electric lights account pumping out tail race.....	\$ 122 04
	Erecting derrick account foundations for towpath wall.....	82 10
	Filling at old towpath bridge account foundations for towpath wall	103 19
	Wrecking old towpath bridge.....	64 70
	Building crib and filling and sinking same at pontoon bridge.....	152 74
	Moving material from tail race to coffer dam at pontoon bridge..	160 37
	Moving stone from near E., J. & E. bridge to pontoon bridge.....	86 56
	Building coffer dam and filling at old towpath bridge.....	98 34
		<hr/>
		870 04
4330	Pumping out tail race.....	595 59
4352	Bracing crib at E. L. & P. Co.'s plant.....	\$ 54 96
	Installing pump at towpath bridge.....	19 98
		<hr/>
		74 94
4360	Filling coffer dam at old towpath bridge.....	\$ 520 16
	Filling coffer dam at pontoon bridge.....	59 77
	Delays of plant account fluctuations in height of water.....	234 13
		<hr/>
		814 06
		<hr/>
	Total.....	<u>\$26,821 29</u>

The record of work done on this section by parties other than the regular contractors is as follows:

In the month of January, Mr. William Keough performed certain services in connection with stopping leaks in the coffer dam on the east side of the Upper Basin for the protection of the Economy Light & Power Company's plant, and rendered a bill for \$1,000 to the District for same. On April 4th (page 6387), the Board authorized the payment of \$600.00 to Mr. Keough in full settlement for all services rendered the Sanitary District. This amount was accepted by Mr. Keough (file No. 3873).

On May 31st (pages 6584-5), the Chief Engineer reported that, in accordance with a decree of the Circuit Court of Will County in the year 1898, it became incumbent upon the Sanitary District to "provide certain sluice gates in the water power construction to take care of the flood waters" and asked authority to arrange for their construction. The report was referred to the Committee on Engineering, and on June 13th (pages 6610-11), the Chief Engineer was directed to purchase the gates and to have the work of placing them done on force account. The Chief Engineer invited bids for furnishing these gates and prices were received for same ranging from \$96.50 to \$98.00 each. On July 5th (page 354 of his letter book), the Chief Engineer issued an order to the American Bridge Company, Chicago, for the supply of the gates at \$96.50 each f. o. b. Joliet. A force of men was employed in placing these gates as they were delivered and thirty-one of the thirty-six were in position at the end of the year.

The following vouchers were issued during the year on this account:

<i>File No.</i>	<i>Firm and Nature of Voucher.</i>	<i>Amount.</i>
4350	American Bridge Co., 5 gates.....	\$482 50
4351	American Bridge Co., 5 gates.....	482 50
4388	American Bridge Co., 5 gates.....	482 50
		<hr/>
		\$1,447 50
4322	A. R. Porter, Clerk, pay rolls.....	\$ 23 10
4329	A. R. Porter, Clerk, pay rolls.....	165 47
4387	A. R. Porter, Clerk, pay rolls.....	169 59
		<hr/>
		358 16
4349	The Marsh & Bingham Co., lumber.....	70 00
4385	Isham Randolph, paid for lumber.....	6 00
		<hr/>
	Total.....	<u>\$1,881 66</u>

The balance of the work chargeable to the section proper and done by miscellaneous firms during the year is given in the following schedule:

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
3662	Economy Light & Power Co., removal of mud and constructing wall to strengthen tall race crib.....\$ 597 44	
	Economy Light & Power Co., excavating mud east of crib and building wall and filling with rock..... 893 24	
		\$1,490 68
3703	Economy Light & Power Co., reinforcing tall race crib and stopping leak in levee.....	873 79
3748	Economy Light & Power Co., pumping out tall race.....\$ 68 63	
	Economy Light & Power Co., strengthening tall race crib and levee and stopping leaks in same..... 1,251 18	
		1,319 81
3826	Economy Light & Power Co., stopping leak at north end of tall race crib.....\$ 87 46	
	Economy Light & Power Co., stopping leak in tall race crib..... 346 59	
	Economy Light & Power Co., stopping leak and strengthening tall race crib and levee..... 107 50	
	Economy Light & Power Co., telephone tolls..... 2 15	
	Economy Light & Power Co., work on tall race crib and levee..... 262 17	
		805 87
3843	Economy Light & Power Co., maintaining crib at tall race.....\$ 180 69	
3916	Economy Light & Power Co., lights for night work on dredge, coffer dam and canal bank.....\$ 130 00	
	Economy Light & Power Co., lights for Upper Basin.... 120 00	
		250 00
4000	Economy Light & Power Co., steam supply for tall race pumps.....\$ 225 00	
	Economy Light & Power Co., lights for tall race crib.... 45 00	
		270 00
4104	Economy Light & Power Co., material account blasting under water at mouth of channel.....\$ 5 20	
	Economy Light & Power Co., steam supply for tall race pumps..... 465 75	
		470 95
4128	Economy Light & Power Co., steam supply for tall race pumps... 195 00	
		\$ 5,856 79
3744	The Canal Commissioners, use of dredge.....\$1,120 00	
	The Canal Commissioners, keeping waste gates clear, etc. 400 00	
		1,520 00
3842	The Canal Commissioners, labor account dam No. 1 and conduit.....\$ 240 67	
	The Canal Commissioners, use of dredge..... 933 50	
		1,174 17
3880	The Canal Commissioners, inspection and tending water..... 121 75	
4302	The Canal Commissioners, use of dredge..... 911 50	
4374	The Canal Commissioners, use of mud pump account towpath wall..... 195 00	
		3,922 42
3667	Geo. Whitty, towing boats through middle and upper basins.....\$ 184 50	
3749	Geo. Whitty, towing boats from dredge to leak in levee along tall race..... 24 00	
		208 50
3702	Gahan & Byrne, stopping leak in tall race levee.....\$ 158 76	
3726	Gahan & Byrne, reconstructing dam No. 1 and conduit..... 418 80	
3747	Gahan & Byrne, stopping leaks in tall race levee..... 868 88	
3759	Gahan & Byrne, stopping leaks in tall race levee.....\$ 392 15	
	Gahan & Byrne, carling for ice and drift..... 235 00	
		627 15
		2,073 59



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3781	Shaller & Schniglaue Co., rental of pumps account tall race.....	100 00
3821	Barrett Hdw. Co., wire and dynamite account ice removal.....\$	71 12
4265	Barrett Hdw. Co., nails account towpath wall.....	51 00
		122 12
3912	Chicago Telephone Co., moving of telephone line account blasting.\$	488 52
4202	Chicago Telephone Co., moving of telephone line account blasting.	131 14
		612 66
8913	The A., T. & S. F. Ry. Co., repairs of track damaged by ice gorge.....	229 08
4030	Wilcox Bros., lumber for tall race crib.....\$	26 60
4264	Wilcox Bros., lumber for towpath wall.....	572 72
		599 32
4159	Werden Buck, pipe for drain through towpath below Ruby Street.....	34 00
4348	E., J. & E. R. R. Co., raising spur track at Phoenix Horse Shoe Works (order of Chief Engineer, dated May 24, 1901).....	500 00
3807	Isham Randolph, paid for clearing ice gorge.....\$	25 08
	Isham Randolph, paid for meals account taking height of water.....	14 25
		\$ 39 33
4064	Isham Randolph, paid for sundry petty items.....	28 38
4173	Isham Randolph, paid for removal of fence at lock No. 5..\$	15 10
	Isham Randolph, paid for pay roll on tall race crib.....	255 45
		270 55
		388 26
Total.....		\$14,596 74

The towpath temporary bridge over the new river channel on this section was constructed in the latter part of the year 1899, but all of the bills entering into the cost of same were not vouchered in that year. Considerable trouble was experienced in the early part of the year 1900 (during the period of ice flow in the channel) in keeping this structure in place, and steps were taken to strengthen it in the early part of February. The pressure of ice was so great, however, that in spite of the efforts made to save it, the entire structure was carried away on February 9th.

The vouchers issued during the year on account of this bridge are shown in the following schedule:

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
3663	Wilcox Brothers, lumber in structure.....	\$572 96
3879	Wilcox Brothers, timber for ice breakers.....	195 54
		\$ 768 50
3824	Strong, Bush & Handwerk, cable, etc., account strengthening bridge.....	120 33
3825	Geo. A. Whelan, placing cables and ice breakers.....	436 31
3822	Humphrey & Sons, hardware in structure.....\$	25 96
3841	Humphrey & Sons, hardware and labor account ice breakers.....	104 91
		130 87
3823	Joliet Gas Light Co., watching main at Cass and Jefferson Streets account wreckage of bridge.....	36 70
3878	Heldmaier & Neu, lumber in structure.....\$	32 40
	Heldmaier & Neu, repairs to bridge floor.....	1 61
		34 01
3972	The J. G. Wagner Co., removing wreckage of bridge at Cass and Jefferson Streets bridges .....	747 07
Total.....		\$2,273 79

A summary of the work done for the year on this section is as follows:  
Account of section proper:

Heldmaier & Neu.....	\$88,335 11
Sundry firms.....	17,078 40
	\$105,413 51

## Account towpath temporary bridge:

Heldmaier & Neu.....	\$ 34 01
Sundry firms.....	2,239 78
	<hr/> 2,273 79
Total.....	<hr/> \$107,687 30

The condition of work on December 31st was as follows:

Total estimated cost of section (for details see files of Engineering Department).....	\$614,856 98
Amount earned to January 1, 1901.....	543,755 71

Unfinished work.....	\$ 71,101 27
Reserved percentage.....	7,479 39
Unpaid vouchers.....	488 50

Balance required to complete.....	<hr/> \$ 79,069 16
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*Section 18—Gahan & Byrne, Contractors.*

With the exception of a certain amount of excavation under the C., R. I. & P. R. R. Co.'s bridge and a small amount of excavation in the channel of the river, these contractors completed their work on this section in the month of April.

The following items were vouchered during the year for work done under the original contract:

Excavation, Head I, 4,996 cubic yards at 45.2 cents.....	\$ 2,258 19
Excavation, Head II, 149 cubic yards at 58 cents.....	86 42
Levee embankment, 3,896 cubic yards at 22 cents.....	857 12
Excavation, Head VI, 336 cubic yards at 36 cents.....	120 96
Repair of I. & M. Canal, Lock No. 5:	
Excavation, 38 cubic yards at \$1.50.....	57 00
Concrete, 60.1 cubic yards at \$6.00.....	360 60

Total.....	<hr/> \$ 3,740 29
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Less amount overestimated in the year 1899:

Retaining wall, 22.9 cubic yards at \$4.05.....	92 74
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Total.....	<hr/> \$ 3,647 55
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The following items were vouchered to Gahan & Byrne during the year for work done under the several orders of the Chief Engineer, issued during the year 1899:

Construction and removal of levee, 700 lineal feet at \$8.00.....	\$ 5,600 00
Overhaul on levee material, 913,596 cubic yards at $\frac{1}{4}$ c.....	6,851 97
Tail race excavation, 19,663 cubic yards at \$1.83.....	35,983 29
Coffer dam construction and removal Dam No. 1, 81 lineal feet at \$8.00.....	648 00
Construction of conduit with brick lining, 2.7 per cent of lump sum.....	342 90

## Intercepting Ditch:

Excavation, earth, 41 cubic yards at 60 cents.....	24 60
Excavation, rock, 41 cubic yards at 90 cents.....	36 90
Repairs to towpath wall, 4.4 cubic yards at \$4.80.....	21 12
I. & M. Canal and retaining wall rip-rap, 804 cubic yards at 45 cents.....	361 80
Extra excavation, dam and conduit, 380 cubic yards at \$1.83.....	695 40
Extra concrete dam and conduit 331.5 cubic yards at \$9.00.....	2,983 50
Granite concrete covering conduit next to Lock No. 5, 10.2 cu. yds. at \$15.00...	153 00

## Extension Penitentiary Ditch:

Excavation, earth, 144 cubic yards at 60 cents.....	86 40
Excavation, rock, 50 cubic yards at 90 cents.....	45 00
Protection wall concrete, 18.7 cubic yards at \$6.00.....	112 20
Cass Street rock excavation, 294 cubic yards at \$2.50.....	735 00
Extra concrete in sluice gates, 6.5 cubic yards at \$.00.....	58 50

Extra excavation guard lock, 107 cubic yards at \$1.50.....	160 50
Back-filling Lock No. 5 and towpath wall, 642 cubic yards at 30 cents.....	192.60
Compensation for rock excavation in excess of contractor's estimate, 20 per cent of lump sum.....	4,420 00

Total.....\$59,512 88

Less amounts overestimated in the year 1899:

Excavation protection wall, etc., 62 cubic yards at \$1.50.....	\$ 93 00
Fifty-foot excavation in channel, 491 cubic yards at \$1.10.....	540 10
	633 10

Total.....\$58,879 58

The following work was done and vouchered to these contractors during the year under verbal orders of the Chief Engineer given in 1900:

McDonough Street fill, 3,556 cubic yards at \$1.00.....	\$ 3,556 00
Overhaul on tail race, 773,311 cubic yards at $\frac{1}{4}$ c.....	5,799 83
Overhaul on McDonough Street fill, 138,428 cubic yards at $\frac{1}{4}$ c.....	1,038 21
Excavation under Jefferson Street temporary bridge, 1,831 cubic yards at \$2.50...	4,577 50

Total.....\$14,971 54

All of the items enumerated above appear on the regular vouchers issued to these contractors during the year 1900. In addition to these, an item was issued in the last regular voucher for 824,870 cubic yards of overhaul on levee at three-fourths of a cent per cubic yard, which amounted to \$6,186.53.

On May 16th (pages 6459-64), the Chief Engineer transmitted to the Board a final voucher for this section, amounting to \$52,686.77 (file No. 3974). The voucher was passed on the same date. The final certificate of the Chief Engineer appears on pages 6459-60.

In the month of May, these contractors excavated the unfinished portion under the C., R. I. & P. R. R. bridge and a voucher for 913 cubic yards of rock at \$2.50 per cubic yard, amounting to \$2,282.50, was issued on June 15th (file No. 4195). This voucher was transmitted to the Board by the Chief Engineer on June 29th (page 6684) in the form of a supplementary final and was referred to the Committee on Engineering. On August 29th (pages 6715-16), the Board authorized the payment of same. The final certificate of the Chief Engineer appears on page 6716.

In addition to the items covered in the regular vouchers, these contractors performed considerable work on force account during the year under the "extra work" clause of their contract and which is chargeable to the section proper. This work is shown in the following schedule:

File No.	Nature of Work.	Amount.
3627	Reconstructing Dam No. 1 and conduit.....	\$ 2,895 25
3635	Installing pump at Dam No. 1 and conduit.....	105 63
	Operating new sluice gates south of McDonough Street.....	140 30
	Repairs to Jackson Street bridge.....	160 00
	Reconstructing Dam No. 1 and conduit.....	2,580 77
		2,986 70
3636	Repairs to Jackson Street bridge.....	\$ 19 80
	Reconstructing Dam No. 1 and conduit.....	6,683 38
		6,703 18
3707	Building crib around tail race.....	2,919 96
3711	Extra wages account Dam No. 1 and conduit.....	\$ 569 65
	Widening channel at east abutment of Jefferson Street bridge....	465 40
		1,035 05
3726	Reconstructing Dam No. 1 and conduit.....	3,349 43
3756	Repairing break in crib at Jackson Street.....	\$ 855 02
	Reinforcing Sanitary District crib at Dam No. 1.....	724 73
		1,579 75
3758	Reconstructing Dam No. 1 and conduit.....	1,253 25

<i>File No.</i>	<i>Nature of Work.</i>	<i>Amount</i>
3759	Extra wages account excavating river channel.....	\$6,152 50
	Extra cost Portland cement account masonry.....	1,355 00
	Reconstructing Dam No. 1 and conduit.....	1,658 53
	Repairs to Jackson Street bridge.....	9 20
	Work account intercepting ditch.....	181 70
	Carling for ice and driftwood.....	235 00
		<hr/> 9,591 93
4005	Removing brewery waste gates and closing the opening.....	\$ 214 01
	Lengthening flume near Jackson Street.....	125 23
	Repairing and rebuilding I. & M. Canal slope walls between Jackson and Jefferson Streets .....	95 51
	Cleaning I. & M. Canal prism under Cass Street bridge.....	234 77
		<hr/> 669 52
4072	Repairs to Jackson Street bridge.....	\$1,136 95
	Reconstructing Dam No. 1 and conduit.....	3,503 70
	Breaking ice gorge.....	180 30
	Dredging above Dam No. 1.....	432 00
		<hr/> 5,252 95
4108	Closing gap at retaining wall at temporary flume near Jackson Street .....	237 47
4172	Constructing retaining wall from Cass to Jefferson Streets.....	763 95
4241	Rental of plant for pumping at mouth of Dam No. 1 and conduit.....	240 00
4313	Rental of plant account removal of tall race coffer dam.....	\$ 57 00
	Rental of plant account excavation of river channel.....	57 00
		<hr/> 114 00
Total	.....	<hr/> \$39,592 41

On September 19th (pages 6743-4), the Board authorized the reduction of the bond on the contract for this section to \$2,000.00.

In the month of April, Gahan & Byrne filed certain claims for extra compensation on this section. These claims, aggregating \$29,045.61, were referred to the Chief Engineer for rulings thereon. On October 24th (pages 6819-21), his findings, which amounted to \$1,159.02, were presented to the Board and ordered placed on file. During the year, these contractors brought suit against the Sanitary District in the sum of \$50,000.00 (Circuit Court No. 212,391).

From the months of June 19th to July 5th, Gahan & Byrne did certain excavation in connection with the construction of a retaining wall between Cass and Jefferson Streets, on the east side of the river channel. An opinion from the Attorney of the District to the effect that, since these contractors had received a final voucher for work done under their contract with the District, they could no longer be regarded as contractors for the Sanitary District, and that the work of constructing the retaining wall could not be done by outside parties without advertising, as provided by law. This opinion is dated July 6th and appears on pages 6653-4 of the Proceedings. On July 11th (page 6652), the Board authorized the Chief Engineer to proceed with the building of this wall on force account. This work was resumed on July 13th and completed at the end of September, and consisted of excavation of foundations; of the construction of about 1,920 cubic yards of concrete wall; of backfilling the wall; of filling in at Desplaines Street; and of the construction of an iron fence on the wall. The cost of the wall, apart from the other work done in connection with same, was \$3.77 per cubic yard, as is shown by a report of Assistant Engineer J. S. Hull, published in the Proceedings for September 26, 1900 (see page 6757).

The total cost of the work done by Sanitary District force account is shown in the following schedule:

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
4166	Willcox Bros, lumber .....	\$ 105 45
4234	Willcox Brds., lumber .....	62 94
		<hr/> \$ 168 39

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
4165	Barrett Hardware Co., hardware.....	\$ 22 37
4233	Barrett Hardware Co., hardware.....	24 20
4265	Barrett Hardware Co., hardware.....	610 17
		<hr/> 665 74
4167	Fred Boehme, sand.....	\$ 90 19
4421	Fred Boehme, sand.....	127 60
		<hr/> 226 79
4168	A. W. Hayes, cement.....	\$ 929 47
4240	A. W. Hayes, cement.....	885 15
		<hr/> 1,814 62
4163	J. R. Bowen & Son, crushed stone.....	\$ 341 00
4164	J. R. Bowen & Son, crushed stone.....	400 00
		<hr/> 741 00
3670	Geo. M. Campbell, crushed stone.....	90 00
4267	Economy Light & Power Co., sand.....	35 00
4162	A. R. Porter, Clerk, pay rolls.....	\$3,135 13
4238	A. R. Porter, Clerk, pay rolls.....	2,281 08
4284	A. R. Porter, Clerk, pay rolls.....	432 30
4322	A. R. Porter, Clerk, pay rolls.....	60 15
		<hr/> 5,908 66
3969	Isham Randolph, Chief Engineer, paid for freight, rubber boots and hardware.....	\$ 76 05
4173	Isham Randolph, Chief Engineer, paid for labor, crushed stone, sand and freight.....	738 15
4275	Isham Randolph, Chief Engineer, paid for freight and cement...	144 40
4307	Isham Randolph, Chief Engineer, paid for freight.....	67 84
		<hr/> 1,026 44
<b>Total .....</b>		<b>\$10,676 64</b>

On July 11th (page 6852), the Chief Engineer was authorized to remove, by force account, the coffer dam that was constructed around the tail-race by Gahan & Byrne in the months of November and December, 1899, and January, 1900, for the purpose of protecting the tail-race work after the water had been turned into the channel. A considerable amount of other work, which was necessary to cleaning up the affairs on this section, was also carried on by District force account. In addition to these items, a considerable amount of labor and material was furnished during the year by sundry firms for miscellaneous work on this section, under various orders of the Chief Engineer, all of which is shown in the following schedule:

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
3640	Shepard Stone Co., crushed stone, account Dam No. 1 and conduit .....	\$ 55 24
3666	W. H. Gardner, use of boats, account Dam No. 1 and conduit....	\$ 98 00
3753	W. H. Gardner, taking care of boats, account Dam No. 1 and conduit .....	45 33
3786	W. H. Gardner, taking care of boats, account Dam No. 1 and conduit .....	37 33
3920	W. H. Gardner, taking care of boats, account Dam No. 1 and conduit .....	168 17
		<hr/> 348 83
3667	Fred Boehme, sand, account Dam No. 1 and conduit.....	134 67
3668	Geo. A. Whelan, express and freight charges, account repairs to Jackson Street bridge .....	\$ 9 93
3709	Geo. A. Whelan, construction of boom, account gate and flume.	600 00
3918	Geo. A. Whelan, use of tools, account extension of flume.....	25 00
		<hr/> 724 98
4104	Geo. M. Campbell, crushed stone, account approaches to Jackson Street bridge .....	12 00
3671	Dolese & Shepard Co., crushed granite, account Dam No. 1 and conduit .....	227 13
3672	Lee & Miller, food for men, account Dam No. 1 and conduit....	359 04
3675	Strong, Bush & Handwerk, hardware, account gate and flume..	96 98

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
3676	Thos. Moulding Co., cement, account I. & M. Canal retaining wall .....	\$742 00
	Thos. Moulding Co., cement, account Dam No. 1 and conduit .....	311 04
		<u>\$1,053 04</u>
3788	Thos. Moulding Co., cement, account Dam No. 1 and conduit....	557 06
3973	Thos. Moulding Co., cement, account Dam No. 1 and conduit....	417 58
4218	Thos. Moulding Co., cement, account Dam No. 1 and conduit....	68 07
		<u>2,095 75</u>
3697	The Canal Commissioners, tending water at Dam No. 1 and conduit .....	\$ 84 00
	The Canal Commissioners, use of dredge, account Dam No. 1 and conduit .....	800 00
	The Canal Commissioners, use of dredge, account I. & M. canal retaining wall .....	1,200 00
		<u>\$2,084 00</u>
3710	The Canal Commissioners, labor, account Dam No. 1 and conduit.	287 50
3744	The Canal Commissioners, use of dredge, etc., account Dam No. 1 and conduit .....	2,772 50
3842	The Canal Commissioners, use of dredge, etc., account Dam No. 1 and conduit .....	\$ 240 67
	The Canal Commissioners, use of dredge, account tail race .....	1,180 16
		<u>\$1,420 83</u>
3880	The Canal Commissioners, inspection and tending water account Dam No. 1 and conduit.....	121 75
3921	The Canal Commissioners, tending water and labor, account Dam No. 1 and conduit .....	575 00
4255	The Canal Commissioners, removal of I. & M. retaining wall coffer-dam .....	2,160 00
4302	The Canal Commissioners, use of dredge, account Dam No. 1 and conduit .....	911 50
4312	The Canal Commissioners, payment for boat destroyed, account Dam No. 1 and conduit.....	150 00
		<u>\$10,483 08</u>
3705	Montello Granite Co., crushed granite, account Dam No. 1 and conduit .....	
		204 79
3706	Heldmaier & Neu, crushed stone, account Dam No. 1 and conduit .....	\$586 00
	Heldmaier & Neu, rental, etc., of steam drill, account Dam No. 1 and conduit .....	34 30
		<u>\$ 620 30</u>
3919	Heldmaier & Neu, casting over at Jackson Street, account Dam No. 1 and conduit .....	60 00
3942	Heldmaier & Neu, payment for two concrete mixing pans destroyed, account Dam No. 1 and conduit.....	85 00
4223	Heldmaier & Neu, pumping, account Dam No. 1 and conduit .....	\$100 00
	Heldmaier & Neu, pumping, account tail race.....	113 76
		<u>213 76</u>
4238	Heldmaier & Neu, removing pump from tail race.....	140 13
4256	Heldmaier & Neu, building protection crib around trombone valve, account Dam No. 1 and conduit.....	122 66
4287	Heldmaier & Neu, removing crib from Inlet to tunnel at Dam No. 1 .....	\$ 18 40
	Heldmaier & Neu, removing driftwood and debris from valve at Dam No. 1.....	46 03
		<u>64 43</u>
4353	Heldmaier and Neu, hauling timbers and removing debris from intake to valve at Dam No. 1.....	115 35
4361	Heldmaier & Neu, use of dredge and repairs, account removing valve protection around Inlet to tunnel at Dam No. 1.....	286 70
		<u>1,708 33</u>

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
3708	Economy Light & Power Co., lighting and labor at Jackson Street bridge .....	\$ 45 00
	Economy Light & Power Co., lighting and labor at Dam No. 1 and conduit .....	262 09
		<u>\$ 307 09</u>
3748	Economy Light & Power Co., use of steam, account of pumping out tall race .....	68 62
3826	Economy Light & Power Co., lighting at Dam No. 1 and conduit .....	\$120 15
	Economy Light & Power Co., lighting at Jackson Street bridge .....	58 96
		<u>179 11</u>
3888	Economy Light & Power Co., lighting at Jackson Street bridge .....	\$ 20 00
	Economy Light & Power Co., lighting at Dam No. 1 and conduit .....	75 00
	Economy Light & Power Co., labor and supplies, account tall race coffer-dam .....	23 00
		<u>118 00</u>
3914	Economy Light & Power Co., lighting at Jackson Street bridge .....	\$ 20 00
	Economy Light & Power Co., lighting at Dam No. 1 and conduit .....	30 00
		<u>\$ 50 00</u>
4106	Economy Light & Power Co., lighting at Jackson Street bridge....	51 33
4267	Economy Light & Power Co., sand, account Dam No. 1 and conduit .....	55 00
		<u>\$ 829 15</u>
3752	Downey Bros, tools, account Dam No. 1 and conduit.....	48 00
3757	Barrett Hardware Co., hardware, account Dam No. 1 and conduit .....	\$ 157 16
4233	Barrett Hardware Co., hardware, account removal of tall race coffer-dam .....	128 77
4265	Barrett Hardware Co., hardware, account excavation main channel .....	29 82
		<u>315 75</u>
3785	Humphrey & Sons, hardware, account gate and flume...\$ 46 80	
	Humphrey & Sons, hardware, account Dam No. 1 and conduit .....	84 69
		<u>\$ 131 49</u>
4034	Humphrey & Sons, hardware, account gate and flume.....	43 71
		<u>175 20</u>
3787	Willcox Bros., lumber, account Dam No. 1 and conduit.....	\$ 338 59
4004	Willcox Bros., lumber, account gate and flume.....	56 21
4264	Willcox Bros., lumber, account repairs to Dam No. 1.....	25 13
		<u>419 93</u>
3884	Werden Buck, cement, account repairs to towpath wall.....	\$ 45 40
4206	Werden Buck, cement, account towpath retaining wall.....	29 60
		<u>75 00</u>
3944	Henry R. Worthington, repairs to pump at tall race.....	115 46
4102	The J. G. Wagner Co., sand, account Dam No. 1 and conduit....	\$ 81 90
4220	The J. G. Wagner Co., cement sacks, account Dam No. 1 and conduit .....	62 70
		<u>144 60</u>
4170	W. McPeck, coal, account pumping at Dam No. 1.....	\$ 33 44
4222	W. McPeck, coal, account pumping at Dam No. 1.....	28 75
		<u>62 19</u>
4171	F. Munch, coal, account pumping at Dam No. 1.....	\$ 82 50
4236	F. Munch, coal, account pumping at Dam No. 1.....	38 47
		<u>120 97</u>

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
4225	Smith-Wallace Shoe Co., rubber boots, account removal tall race coffer-dam .....	\$ 86 08
	Smith-Wallace Shoe Co., rubber boots, account excavation river channel .....	80 70
		166 78
4254	Heggie Bros., material for trombone valve at head of conduit.	\$ 493 20
4271	Heggie Bros., material for trombone valve at head of conduit.	499 50
4304	Heggie Bros., material for trombone valve at head of conduit.	479 10
4305	Heggie Bros., counterweight for trombone valve at head of conduit .....	56 60
		1,528 40
3781	Shaller & Schniglau, rental of pump, account excavation main channel .....	\$100 00
	Shaller & Schniglau, rental of pump, account Dam No. 1 and conduit .....	100 51
		200 51
4161	A. R. Porter, Clerk, pay roll, account removal of tall race coffer-dam .....	\$559 19
	A. R. Porter, Clerk, pay roll, account Dam No. 1 and conduit .....	138 65
		697 84
4162	A. R. Porter, Clerk, pay roll, account removal of tall race coffer-dam .....	\$ 407 13
	A. R. Porter, Clerk, pay roll, account Dam No. 1 and conduit .....	186 75
		593 88
4235	A. R. Porter, Clerk, pay roll, account river channel excavation .....	\$1,568 68
	A. R. Porter, Clerk, pay roll, account flume and gate .....	26 00
	A. R. Porter, Clerk, pay roll, account removal of tall race coffer-dam .....	877 34
	A. R. Porter, Clerk, pay roll, account Dam No. 1 and conduit .....	329 93
	A. R. Porter, Clerk, pay roll, account penitentiary ditch .....	78 55
	A. R. Porter, Clerk, pay roll, account repairs to Jackson Street bridge .....	24 75
	A. R. Porter, Clerk, pay roll, account repairs to Wood building .....	17 24
		2,922 49
4284	A. R. Porter, Clerk, pay roll, account Dam No. 1 and conduit .....	\$ 940 51
	A. R. Porter, Clerk, pay roll, account removal of tall race coffer-dam .....	5 75
	A. R. Porter, Clerk, pay roll, account removal of gate and flume .....	15 75
	A. R. Porter, Clerk, pay roll, account trombone valve at head of conduit .....	78 00
	A. R. Porter, Clerk, pay roll, account river channel excavation .....	27 78
	A. R. Porter, Clerk, pay roll, account miscellaneous...	38 73
		1,106 52
4322	A. R. Porter, Clerk, pay roll, account Dam No. 1 and conduit.	92 00
		5,412 73
3722	Isham Randolph, Chief Engineer, paid freight, account Dam No. 1 and conduit .....	\$ 738 62
3807	Isham Randolph, Chief Engineer, paid for taking height of water .....	\$ 14 25
	Isham Randolph, Chief Engineer, paid for sundries, account Dam No. 1 and conduit .....	94 24
		108 49



<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount</i>
4115	Isham Randolph, Chief Engineer, paid for use of drill at Dam No. 1 and conduit .....	17 00
4231	Isham Randolph, Chief Engineer, paid for freight on material, account removal of tall race coffer-dam.....	18 75
4307	Isham Randolph, Chief Engineer, paid for hardware, account gate and flume.....	5 07
		<hr/> 887 93
		\$26,953 32
Less cash received as follows:		
	Meacham & Wright, cement bags returned, account Dam No. 1 and conduit .....	\$ 93 00
	Werden Buck, cement bags returned, account towpath retaining wall..	3 00
	Illinois Steel Co., building of crest at Dam No. 1.....	34 46
		<hr/> 130 46
	Total .....	<hr/> <hr/> \$26,822 86

The final voucher to The J. G. Wagner Co. for the construction of the Jefferson Street temporary bridge was presented to the Board on June 29th (page 6634) and referred to the Committee on Engineering. On July 11th (page 6658), the Board authorized the payment of same (file No. 4140). The final certificate of the Chief Engineer appears on pages 6659-60 of the Proceedings.

On June 29th (page 6634), the Chief Engineer transmitted a communication to the Board in reference to certain extra charges of The J. G. Wagner Co. on account of the prosecution of its contracts with the Sanitary District for bridges at Joliet, and also in reference to certain countercharges of the District for payments made to outside parties for work done on these bridges on account of The J. G. Wagner Co. The amount of the claims on account of the Jefferson Street temporary bridge was \$594.27, and the countercharges were \$373.51. This communication was referred to the Committee on Engineering and on July 11th (pages 6658-60), the Board authorized the payment of the claims as soon as The J. G. Wagner Co. had deposited with the District the amount of the countercharges. This deposit was made shortly after and a final settlement was effected.

At various times during the year, as the construction of the permanent bridge required it, certain portions of the Jefferson Street temporary structure were removed. When the permanent bridge was opened for traffic, the temporary structure was abandoned and ready for removal. On May 9th, the Committee on Engineering authorized the Chief Engineer to remove what remained of it and to have the work done on District force account. This work was begun on May 15th and completed on June 5th.

The vouchers issued during the year for all the work done on account of this structure are shown in the following schedule:

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
3669	The J. G. Wagner Co., repairs.....	\$ 31 39
	The J. G. Wagner Co., cleaning off ice, etc.....	4 20
		<hr/> \$ 35 59
3972	The J. G. Wagner Co., cleaning off snow.....	\$ 8 63
	The J. G. Wagner Co., removing west end of structure....	97 63
	The J. G. Wagner Co., clearing away drift wood and ice...	109 25
		<hr/> 215 51
4102	The J. G. Wagner Co., laying gas and water pipe.....	\$227 99
	The J. G. Wagner Co., turning off and on water valves...	25 00
	The J. G. Wagner Co., cleaning and tearing up structure..	146 36
	The J. G. Wagner Co., removing portion of structure.....	194 92
		<hr/> 594 27
4140	The J. G. Wagner Co., lump sum price for deviating water pipe....	500 00
		<hr/> \$1,345 37

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
3668	Geo. A. Whelan, lunch furnished during night work.....	\$ 19 75
3709	Geo. A. Whelan, construction of boom.....	345 48
4132	Geo. A. Whelan, reimbursement for worn out rope.....	62 55
		<hr/> 427 78
3708	Economy Light & Power Co., arc lights.....	\$ 80 00
3826	Economy Light & Power Co., arc lights.....	90 94
3916	Economy Light & Power Co., arc lights.....	30 00
4101	Economy Light & Power Co., arc lights.....	23 00
		<hr/> 173 94
4083	Jos. F. Haas, Clerk, pay roll, account removing structure.....	522 15
4095	Strong, Bush & Handwerk, supplies, account removing structure..	24 81
4108	Gahan & Byrne, rental of holsting engine, etc., account removing structure .....	23 57
3722	Isham Randolph, paid for lumber.....	\$ 23 32
4115	Isham Randolph, pay roll, account removing structure.....	131 10
		<hr/> 154 42
		<hr/> \$2,672 04

Less cash received as follows:

S. Nathan, old iron .....	\$141 98
The J. G. Wagner Co. (reimbursement), pipe, fittings and labor.....	350 57
The J. G. Wagner Co., connecting pipe.....	22 94
	<hr/> 515 49
Total .....	<hr/> \$2,156 55

The Chicago, Rock Island and Pacific Railway Company continued the supply of labor and material in connection with its temporary crossing of the river channel on this section, and the amount vouchered to it during the year on this account is as follows:

<i>File No.</i>	<i>Nature of Work.</i>	<i>Amount.</i>
3674	Lumber and nails.....	\$ 2 57
3887	Engine service, gravel for filling and labor.....	\$ 52 87
	Labor, lumber and nails.....	37 36
		<hr/> 90 23
3943	Engine service, dirt for filling and labor.....	376 97
4133	Putting in temporary crossovers, lining tracks and flagman's services...	509 75
4207	Labor .....	103 23
4224	Labor and material .....	183 62
		<hr/> \$1,266 39
Less lumber sold to railroad company.....		436 55
Total .....		<hr/> \$ 829 84

A summary of all the items earned and vouchered during the year on this section, exclusive of permanent bridges, is as follows:

Account section proper:	
Gahan & Byrne.....	\$136,236 75
Account sundry firms.....	26,822 86
	<hr/> \$163,059 61
Account Jefferson Street temporary bridge.....	\$ 2,156 55
Account C., R. I. & P. Ry Co.'s temporary bridge.....	829 84
	<hr/> 2,986 39
Total.....	<hr/> \$166,046 00

The condition of work on December 31st was as follows:

Total estimated cost of section (for details see files of Engineering Department).	\$588,121 89
Amount earned and paid to January 1, 1901.....	588,121 89

## BRIDGES.

The policy of the Sanitary District in reference to the bridge problem of the Chicago River is covered in this report under the head of "Chicago River." In addition to the matter there cited, the records of the Board show a number of dealings of a general character in connection with these bridges, which will be treated under this head.

On April 4th (pages 6392-3), the Board received a communication from the Chicago River Improvement Association asking for the removal of the center pier bridges spanning the Chicago River and the substitution thereof of bridges "of such type as will leave the entire width of the river free from obstructions." The communication was referred to the Committee on Engineering and, on April 25th (pages 6443-4), the Board placed the said communication on file on the ground that bridges of the type asked for had been ordered to be constructed.

On April 25th (pages 6442-3), the Board invited the Municipal Art League, "an association devoted to securing tasteful and pleasing effects in public structures in the City of Chicago," to make any suggestions as to how the plans of the proposed bridges should be modified so as to secure artistic effects.

On May 23d (pages 6572-3) the Committee on Engineering presented a form of agreement between the Sanitary District of Chicago and Frank M. Montgomery & Co. for the right to construct six bridges of the Scherzer type, and for the preparation and delivery of the plans and specifications for same. The total amount to be paid was \$108,000.00, of which amount \$72,000.00 was to be paid upon the execution of the agreement and the balance to be paid from time to time as the work progressed. The sites of the proposed bridges mentioned in this form of agreement were as follows: Eighteenth Street, Main Street, Randolph Street, and such other three points in the City of Chicago as the Sanitary District may select.

The Board authorized the execution of the said agreement. On the same date (page 6570), the Board approved the joint bond of the Scherzer Rolling Lift Bridge Company and of Frank M. Montgomery & Co. on the proposed agreement. The executed agreement bears date of May 23d and appears in the Proceedings for June 13th (pages 6607-9). Of the total amount shown in this contract, \$72,000.00 was paid during the year (file Nos. 4025 and 4062).

On August 29th (page 6696), President Boldenweck presented a message to the Board requesting that a Special Committee be appointed to confer with the authorities of the City of Chicago for the purpose of securing certain data in connection with the preparation of the plans of the bridges to be constructed over the Chicago River. The request was complied with and Trustees Wenter, Carter and Eckhart were appointed as the said Committee.

On the same date (pages 6717-19), the Board passed an ordinance accepting the ordinance of the City of Chicago for the construction, by the Sanitary District, of certain bridges at State Street, Randolph Street, Harrison Street, Polk Street, Eighteenth Street, Main Street and Ashland Avenue. The ordinance of the City of Chicago appears on Pages 6718-19 of the Proceedings.

On September 19th (page 6741), President Boldenweck transmitted to the Board the approval of Acting Secretary of War, Mr. G. D. Melklejohn, of the plans for Harrison Street, Throop (Main) Street, and Ashland Avenue bridges.

*Van Buren Street Approach Span, Chicago River. Chicago Bridge and Iron Company, Contractor.*

The contract for the substructure proper of this span was completed in the month of February but certain additional work was done after that time by this contractor before a final voucher was rendered. The items covering the operations of this Company for the year are as follows:

Excavation, 499.78 cubic yards at \$1.048.....	\$ 523 77
Sheet piling and bracing, 16,498 feet B. M. at \$38.42.....	633 86
Timber in foundation, 9,948 feet B. M. at \$52.39.....	521 17
Portland cement concrete, 602.95 cubic yards at \$9.08.....	5,474 79
Masonry, 22.91 cubic yards at \$8.731.....	200 03
Granite block pavement, 156.33 square yards at \$2.381.....	372 22
Old masonry removed, 483.07 cubic yards at \$1.746.....	843 44
Removing old caissons and grillage (force account).....	1,031 12
Repaving roadway (force account).....	31 05

Cutting and removing old docks (force account).....	997 05
Stopping sewers (force account).....	150 78
Repairing sidewalk and skylights along C. & A. freight office (force account)....	141 45
Building end to machinery house under bridge (force account).....	100 46
Stopping leak in City main (force account).....	61 41
Plastering old piers (force account).....	102 93
Bracing between piers (force account).....	365 78

Total .....\$11,551 31

On May 31 (pages 6590-91) the Board passed the final voucher for substructure work, amounting to \$6,882.92 (File No. 4024). The final certificate of the Chief Engineer appears on page 6591.

The contract for the superstructure work was completed in the month of March. The items vouchered during the year on this account are as follows:

Balance of final price on superstructure.....	\$4,522 50
Extra lumber built in place, 25,992 feet B. M. at \$38.10.....	990 30
Cedar block pavement, 293.33 square yards at \$1.746.....	512 15
Extra material in block pavement.....	141 68
Extra work putting viaduct on west end in place.....	1,038 00

Total .....\$7,204 63

On July 11 (pages 6656-7) the Board passed the final voucher, amounting to \$7,204.63 (File No. 4144). The final certificate of the Chief Engineer appears on page 6657.

Some work in connection with this span was also done by outside parties during the year, a statement of the records of which are as follows:

As was stated under the head of "Chicago River," the Chief Engineer, on January 26 (page 455 of his letter book), issued an order to the Lydon & Drews Company for certain dredging and hauling of the dredged material to the Lake Front Park, part of which order referred to work in connection with this span. In addition to the work done under this written order, this firm furnished sundry labor and material on this account. The work was done in the months of April and May under the "extra work" clause of its by-pass contract, dated June 30, 1898. The items vouchered to the Lydon & Drews Company during the year on account of the Van Buren Approach Span are as follows:

File No.	Nature of Work.	Amount.
4190	Excavation of spoil, 3,357.85 cubic yards at 19c.....	\$ 637 99
4190	Haul to Lake Front Park, 3,357.85 cubic yards at 16c.....	537 26
4331	Building wall under sidewalk at Alton building.....	\$ 70 67
	Repairing roadway .....	87 85
	Taking out sewer pipe.....	56 69
	Repairing sidewalks .....	404 09
	Cleaning out rubbish under sidewalk.....	31 62
	Plastering walls .....	28 75
	Taking out jackscrews .....	49 45
		709 12

Total .....\$1,884 37

On August 25 (page 427 of his letter book) the Bridge Engineer, Mr. W. M. Hughes, accepted the proposal of the Kelly-Atkinson Construction Company to do the necessary replacing and repairs to the bracing between the machinery girder and the abutment and grouting under the base of the column of this structure, for the lump sum of \$500.00. This work was begun immediately after the order was issued and was finished on September 12 (File No. 4281).

In the month of October a partition for the machinery room and a stairway leading from the machinery floor to the street was built. The following items were vouchered on this account:

<i>File No.</i>	<i>Firm and Nature of Work.</i>	<i>Amount.</i>
4295	John Griffiths, lumber .....	\$ 39 57
4325	Isham Randolph, paid for labor.....	\$140 10
4356	Isham Randolph, paid for supplies, etc.....	36 74
4385	Isham Randolph, paid for repairs.....	75
		<u>177 59</u>
Total	.....	<u>\$ 217 16</u>

A summary of the amounts earned and vouchered during the year on account of this span is as follows:

Chicago Bridge and Iron Company.....	\$18,755 04
Sundry firms .....	2,601 53
Total .....	<u>\$21,357 47</u>

The condition of work on December 31 was as follows:

Excavation, 2,599.78 cubic yards at \$1.048.....	\$ 2,724 57
Sheet piling and bracing, 70,756 feet B. M. at \$38.42.....	2,718 45
Timber in foundation, 37,248 feet B. M. at \$52.39.....	1,951 42
Piles delivered, 2,200 lineal feet at 20c.....	440 00
Piles driven, 2,200 lineal feet at 42c.....	924 00
Portland cement concrete, 832.95 cubic yards at \$9.08.....	7,563 19
Masonry, 22.91 cubic yards at \$8.781.....	200 03
Old masonry removed, 758.07 cubic yards at \$1.746.....	1,323 59
Granite block pavement, 156.33 square yards at \$2.381.....	372 22
Cedar block pavement, 293.33 square yards at \$1.746.....	512 15
Extra lumber built in place, 25,992 feet B. M. at \$38.10.....	990 30
Excavation of spoil, 3,357.85 cubic yards at 19c.....	637 90
Haul to Lake Front Park, 3,357.85 cubic yards at 16c.....	537 26
Lump sum price for superstructure.....	8,572 50
Extra material in block pavement.....	141 68
Extra work putting viaduct on west end in place.....	1,038 00
Building wall under sidewalk at Alton building.....	70 67
Repairing roadways .....	98 90
Stopping sewers and taking out sewer pipe.....	207 47
Repairing sidewalks, etc.....	545 54
Cleaning out rubbish under sidewalks.....	31 62
Plastering walls and piers.....	131 68
Taking out jackscrews.....	49 45
Removing old caissons and grillage.....	1,031 12
Cutting and removing old docks.....	997 05
Sundry work account machinery house and stairway.....	317 62
Stopping leak in city main.....	61 41
Extra bracing and grouting.....	865 78
Pulling piles and hoisting cable.....	148 50
Use of drums, jackscrews, etc., and reimbursement for tools destroyed, etc.....	238 95

Total cost of span.....	\$35,443 11
Amount earned to January 1, 1901.....	33,055 66

Unfinished work .....	\$ 387 45
Unpaid voucher .....	75

Balance required to complete.....	<u>\$ 388 20</u>
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*Harrison Street Bridge, Chicago River. Rolling Lift Bridge of the Scherzer Type. Span, 175 Feet, Centers of Bearings, and 140 Feet Clear Channel. Total Length, Back to Back of Abutments, 265 Feet. Single Roadway 36 Feet Wide and Two 8-Foot Sidewalks.*

The plans and specifications for this bridge were furnished by Frank M. Montgomery & Co. under the general agreement dated May 23, 1900, as mentioned above.

On November 9 (page 6839) the Board ordered the advertisement for proposals for this bridge. No bids were received during the year.

*Taylor Street Highway Bridge, Chicago River. Rolling Lift Bridge of the Scherzer Type. Span 148 Feet 7 Inches, Centers of Bearings, and 120 Feet Clear Channel. Single Roadway 18 Feet Wide and Two 5-Foot Sidewalks. Weight of Metal in Structure, 999,332 Pounds. Chicago Bridge and Iron Company, Contractor.*

The substructure contract for this bridge was completed in the month of February and the following items were vouchered during the year to the Chicago Bridge & Iron Co.:

Excavation, 683.9 cubic yards at 55 cents.....	\$ 376 15
Sheet piling and bracing, 66,861 feet B. M. at \$40.00.....	2,674 44
Timber in protection, 9,072 feet B. M. at \$50.00.....	453 60
Piles delivered, 8,905 lineal feet at 20 cents.....	1,781 00
Piles driven in foundation, 1,029 lineal feet at 33 cents.....	339 57
Piles driven in protection, 5,610 lineal feet at 30 cents.....	1,683 00
Piles driven in coffer dam, 1,155 lineal feet at 25 cents.....	288 75
Piles driven on a batter, 16 at \$15.00.....	240 00
Portland cement concrete, 163.86 cubic yards at \$6.60.....	1,081 48
Masonry, 12.9 cubic yards at \$15.40.....	198 66
Removal of old abutments, 20 per cent of lump sum.....	440 00
<b>Total.....</b>	<b>\$9,556 65</b>

On March 21st (page 6352) the final voucher for the substructure contract, amounting to \$6,537.29, was presented to the Board and referred to the Committee on Engineering. On April 11 (pages 6406-7) the Board ordered the said final voucher paid (File No. 3902). The final certificate of the Chief Engineer appears on page 6407.

Work on the superstructure for this bridge was begun in the month of May and was continued to the end of the year, at which time the work was nearly completed. On July 18th (page 6667) the Board passed a voucher in favor of the Chicago Bridge & Iron Company for \$31,200.00, same being 60 per cent of the contract price for the delivery of all of the material at the site of erection (File No. 4135).

In the early part of the year the steamer "Arthur Orr" had considerable trouble in passing between the coffer dam and the old center pier protection of the C. T. T. R. R. Co.'s bridge and the protection to the east pier of the Taylor Street bridge, and it was found necessary to navigation at this point to remove the southern corner of the Taylor Street bridge protection. An outfit was hired from Thos. Phee to take off this corner and to drive a clump of piles near by in order to fully protect the east pier from the passing vessels. This work was done in the months of April and June at a cost to the District of \$1,194.01 (File No. 4185). In addition to this work this contractor did a small amount of concreting on account of leaky counterweight pits. This work was done in the month of July at a cost of \$86.67 (File No. 4185).

In the month of June it was found necessary to do certain stone cutting in connection with the substructure of this bridge and the Chief Engineer had the work done on force account. This work consisted of taking off the tops of the east abutment and the two piers and cost the District \$178.00 (File No. 4115).

Certain material and labor were furnished by outside parties in connection with the operation of this bridge, which was not covered in the regular contract, as is shown in the following schedule:

<i>File No.</i>	<i>Firm and Nature of Voucher</i>	<i>Amount.</i>
4279	Geo. P. Nichols & Bro., wiring between Street Railway Co.'s wires and operating house.....	\$100 00
4820	Green's Dredging Co., digging trench for laying cable.....	405 00
4356	Isham Randolph, paid for connecting cables in manhole at west end of bridge.....	13 38
4381	City of Chicago, making connections for operating bridge.....	237 48
<b>Total.....</b>		<b>\$755 86</b>

On August 29 (pages 6699-6700) the Board authorized the driving of a clump of piles to the north of the east pier for the protection of the bridge tender's house on the east span of this bridge. No work was done on this account during the year.

A summary of the earnings for the year on account of this bridge is as follows:

Chicago Bridge and Iron Company.....	\$40,756 65
Sundry firms.....	2,214 54
<b>Total.....</b>	<b>\$42,971 19</b>

The condition of work on December 31st was as follows:

Excavation, 2,933.9 cubic yards at 55 cents.....	\$ 1,613 65
Sheet piling and bracing, 289,390 feet B. M. at \$40.00.....	11,575 60
Timber in protections, 9,072 feet B. M. at \$50.00.....	453 60
Piles delivered, 19,405 lineal feet at 20 cents.....	3,881 00
Piles driven in foundations, 6,242 lineal feet at 33 cents.....	2,059 86
Piles driven in protections, 5,750 lineal feet at 30 cents.....	1,725 00
Piles driven on a batter, 74 at \$15.00.....	1,110 00
Piles driven in coffer dam, 3,255 lineal feet at 25 cents.....	813 75
Portland cement concrete, 1,087.86 cubic yards at \$6.60.....	7,179 88
Masonry, 138.9 cubic yards at \$15.40.....	2,139 06
Iron placed in foundations, 22,640 pounds at 4 cents.....	905 60
Removal of old abutments, lump sum.....	2,200 00
Rebuilding shaft and vault.....	224 69
Stone cutting in rocker pits.....	219 08
Reconstructing sewer.....	144 32
Cutting off corner of east pier protection.....	1,194 01
Extra concrete work account leaks in counterweight pits.....	86 67
Extra stone cutting account east abutment and two piers.....	178 00
Extra work driving protection piles.....	279 80
Extras account operating bridge:	
Wiring between Street Railway Co.'s wires and operating house....	\$100 00
Digging trench for laying electric cable.....	405 00
Making connections.....	237 48
Connecting lead-covered cables in manhole.....	13 38
Telephones between operating houses.....	50 00
Current furnished for operation of bridge.....	175 00
	<hr/> 980 86
Design of bridge.....	12,666 67
Lump sum price for superstructure.....	52,000 00
Extra medium and soft steel, 21,042 pounds at 6 cents.....	1,262 52
Extra steel and iron castings, 1,941 pounds at 10 cents.....	194 10
Extra counterweight castings, 17,810 pounds at 2 cents.....	356 20
Miscellaneous work performed by Chicago Bridge & Iron Co. under "extra work" clause.....	1,965 04
	<hr/>
Estimated cost of bridge.....	\$107,408 96
Amount earned and vouchered to January 1, 1901.....	82,326 30
	<hr/>
Unfinished work and balance required to complete.....	\$ 25,082 66

*Chicago Terminal Transfer Railroad Company's Bridge, Chicago River. Rolling Lift Bridge of the Scherzer Type. Double Track, 275 Feet Span, Centers of Bearings, and 120 Feet Clear Channel. Weight of Metal in Structure, 4,890,978 Pounds. Pennsylvania Steel Company, Contractor.*

This contractor continued work on the substructure throughout the year and the items covering the operations for that period are as follows:

Excavation, 3,694 cubic yards at 50 cents.....	\$ 1,847 00
Sheet piling and bracing, 483,930 feet B. M. at \$34.00.....	16,453 62
Piles delivered, 29,610 lineal feet at 18 cents.....	5,329 80
Piles driven in foundation, 10,691 lineal feet at 30 cents.....	3,207 30
Piles driven in protections, 2,750 lineal feet at 30 cents.....	825 00
Piles driven in coffer dam, 210 at \$5.00.....	1,050 00
Piles driven on a batter, 140 at \$8.00.....	1,120 00
Old piles pulled, 32 at \$4.00.....	128 00
Portland cement concrete, 6,000 cubic yards at \$5.75.....	34,500 00
Masonry, 730 cubic yards at \$13.00.....	9,490 00
Sand filling for stopping leaks in counterweight pits, 1,394.6 cubic yards at 50c..	697 30
Placing temporary air pipe.....	1,062 00
<b>Total.....</b>	<b>\$75,710 02</b>

Work on the superstructure of this bridge was begun in the month of November and continued throughout the balance of the year. One voucher, amounting to \$48,404.87, was issued on this account, said amount being 60 per cent of the value of the material delivered at the site of the work (File No. 4367). This voucher was issued by authority of the Committee on Engineering on December 12th.

Owing to the demands of the C. T. T. R. Co. the original plans for this bridge were modified and as a result the weights of the superstructure were considerably increased. On April 30th the contractor for this work presented claims to the Bridge Engineer, Mr. W. M. Hughes, for the increased weights and other items in connection with the changed plans, the total of which amounted to \$32,960.51. On May 21st the Bridge Engineer reported to the Committee on Engineering on these claims, of which amount he allowed \$19,616.61. On May 31st (pages 6594-6) the Board allowed this amount "in full of all demands for extras up to date." The statement of the claims of the Pennsylvania Steel Company and the report of the Bridge Engineer on same appear in the Proceedings for May 31st (pages 6595-6).

The following is a schedule of the letters written during the year by the Chief Engineer to the contractor for this bridge:

<i>Date.</i>	<i>Subject.</i>	<i>Page of Letter Book.</i>
June 14	Lack of progress on substructure.....	288
July 7	Dumping of debris into river.....	359
Dec. 22	Restoration of coffer dam and completion of substructure.....	365

Some inconvenience was experienced by vessels in passing through the river at this point during the navigation season, and the following is a record of the work that was found necessary to be done in order to relieve the situation: During the month of April Thomas Phee removed the boiler house (which projected beyond the line of the bridge over the channel) from the C. T. T. R. Co.'s old bridge, in order to allow the boats to pass through the channel more freely. This work was done on force account at a cost to the District of \$164.33 (File No. 4184). In the month of September the steamer "S. S. Curry" was unable to pass through the east draw of this bridge and it became necessary to remove a portion of the coffer dam in order to relieve the boat. This work was done by the Lydon & Drews Company with its pile driver and crew at a cost to the District of \$83.00 (File No. 4302). In the month of October the steamer "Amazon" became fastened between the coffer dam and the old center pier of this bridge and the Lydon & Drews Company was ordered to release the boat. The work consisted of pulling piles, dredging, etc., and the cost to the District was \$900.38 (File No. 4383).

The C. T. T. R. Co. did considerable work during the year in connection with this bridge. The principal portion of the work was done in accordance with that section of its contract with the District which allowed an expenditure of an amount not to exceed



\$60,000.00, for the removal of the old bridge, the changing of tracks, the interlocking system, the enlargement of its operating plant, etc. The vouchers issued on this account aggregated \$5,856.60 (File Nos. 3692 and 3932). In addition to this amount certain expenditures were incurred and vouchered which were not chargeable against the said \$60,000.00. These items amounted to \$2,363.34 for the year (File Nos. 3859, 3867 and 3931).

A summary of the earnings for the year on account of this bridge is as follows:

Pennsylvania Steel Company.....	\$124,114 89
Sundry firms.....	9,367 65
<b>Total.....</b>	<b>\$133,482 54</b>

The condition of work on December 31st was as follows:

Excavation, 13,294 cubic yards at 50 cents.....	\$ 6,647 00
Sheet piling and bracing, 576,852 feet B. M. at \$34.00.....	19,612 96
Timber in foundations and protection, 8,118 feet B. M. at \$44.00.....	357 19
Piles delivered, 79,395 lineal feet at 18 cents.....	14,291 10
Piles driven in foundations, 29,564 lineal feet at 30 cents.....	8,869 20
Piles driven in protection, 7,295 lineal feet at 30 cents.....	2,188 50
Piles driven in coffer dam, 297 at \$5.00.....	1,485 00
Piles driven on a batter, 140 at \$8.00.....	1,120 00
Portland cement concrete, 6,523.76 cubic yards at \$5.75.....	37,511 62
Masonry, 1,142.23 cubic yards at \$18.00.....	14,848 99
Old dock pulled, 222 lineal feet at \$2.00.....	444 00
Old masonry removed, 214.52 cubic yards at \$3.00.....	643 56
Old piles pulled, 347 at \$4.00.....	1,388 00
Sand filling, 1,894.6 cubic yards at 50 cents.....	697 30
Placing temporary air pipe.....	1,062 00
Placing permanent air pipe.....	1,616 29
Lump sum for changing power machinery, interlocking system, tracks, etc.....	60,000 00
Work account releasing boats and assisting navigation.....	1,147 71
Lump sum price for superstructure.....	214,500 00
Extra allowances for superstructure.....	19,616 61
Design of bridge.....	25,333 33
Estimated prospective charges.....	9,272 28

Total estimated cost of bridge.....	\$442,852 64
Amount earned to January 1, 1901.....	230,076 32

Unfinished work.....	\$212,576 32
Reserved percentage.....	12,459 22
Unpaid vouchers.....	1,933 75

Balance required to complete.....	\$226,969 29
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*Canal Street Bridge, Chicago River. Rolling Lift Bridge of the Scherzer Type. Span 188 Feet, Centers of Bearings and 140 Feet Clear Channel. Total Length Back to Back of Abutments, 283 Feet. Single Roadway, 22 Feet Wide and Two 7 Feet Sidewalks.*

On February 21st (pages 6307-8), a communication from the Scherzer Rolling Lift Bridge Company was presented to the Board in which this Company offered to construct the substructure of this bridge in accordance with the Scherzer type, for the sum of \$43,000.00, and to furnish the superstructure complete and ready for operation

for the sum of \$85,000.00. The communication was referred to the Committee on Engineering and, on March 28th (page 6361), the Board placed it on file.

As a result of the advertisement for proposals for this bridge, nine bids, based upon the Schinke design, were received by the Board on February 21st (pages 6310-6310 A) and referred to the Chief Engineer for tabulation. On April 18th (page 6424), the Board rejected all of the said bids.

On April 25th (page 6441), the Board authorized its President and Clerk to execute an agreement with Frank M. Mont-

gomery & Co. for the right to construct a bridge at this point under the patents of the Scherzer Rolling Lift Bridge Company, for the sum of \$18,000.00. On the same date (page 6437), the Board approved the bond offered by the said Frank M. Montgomery & Co. for the faithful performance of the contract. The executed agreement bears date of April 23, 1900, and appears on pages 6559-60 of the Proceedings. Of the total amount agreed to in the contract \$12,000.00 was paid on April 25th (File No. 3930) and the balance was paid by authority of the Board dated November 28th (page 6869 and File No. 4337).

On May 23rd (page 6571), the Board adopted and approved certain recommendations made by the Municipal Art League in reference to the artistic appearance of this bridge.

On May 31st (pages 6570-80), the President transmitted to the Board and the Board received and placed on file the approval of the Secretary of War of the location and plans for this bridge.

On August 29th (page 6699), the President transmitted a message to the Board in reference to a difference existing between the City of Chicago and the Sanitary District in the foundation plans for this bridge. The message was referred to the Committee on Engineering. On October 24th (pages 6817-18), a communication to the Board from the Mayor of the City of Chicago, Mr. Carter H. Harrison, calling attention to the differences of opinion between the City and the Sanitary District Engineers as to the necessary strength of the foundation and the advisability of submitting the matter to disinterested parties for settlement, was referred to the Committee on Engineering, with power to act.

As a result of the second advertisement for proposals for this bridge, eight bids, based upon the Scherzer design, were received by the Board on August 29th (pages 6720-6720A) and referred to the Chief Engineer for tabulation. On October 24th (page 6822), the Board, for the second time, rejected all bids for this work.

On November 9th (page 6839), the Board ordered the advertisement for another set of proposals for this bridge. No bids were received on this account during the year.

In connection with the Schinke design for this bridge, the plans and specifications were furnished by Mr. G. H. Benzenberg, who represented Mr. Max G. Schinke, the owner of the said design. This work was done under authority of the Committee on En-

gineering on October 30th, 1899, and under orders of the Chief Engineer, dated November 15, 1899 (page 293 of his letter book). On November 28th (pages 6868-9), the Board authorized the payment of \$2,500.00 to Mr. G. H. Benzenberg, in full settlement for all work done for the District in connection with the preparation of the plans and specifications for the proposed Schinke bridge (File No. 4326).

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*Main Street Bridge, Chicago River. Rolling Lift Bridge of the Scherzer Type. Span 161 Feet, 8 Inches, Centers of Bearings and 140 Feet Clear Channel. Total Length Back to Back of Abutments, 247 Feet, 8 Inches. Single Roadway, 36 Feet Wide, and Two 8 Feet Sidewalks.*

The plans and specifications for this bridge were furnished by Frank M. Montgomery & Co. under the general agreement dated May 23, 1900, as mentioned above.

On November 9th (page 6839), the Board ordered the advertisement for proposals for this bridge. No bids were received during the year.

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*Ashland Avenue Bridge, Chicago River. Through Bascule Bridge of the Page Type. Span 168 Feet Centers of Bearings, with Two 45 Feet Flared Approach Spans. Clear Channel, 140 Feet. Single Roadway, 36 Feet Wide and Two 8 Feet Sidewalks.*

On June 20th (pages 6625-6), the Board authorized the execution of an agreement with Page & Shnoble for the right of the Sanitary District to construct a bridge across the Chicago River at Ashland Avenue, under the design and patents of J. W. Page and to prepare and deliver to the District the plans for same, at a total cost of \$15,000.00. On June 29th (page 6635), the Board accepted the bond on this contract. The executed contract, which bears date of June 20, 1900, appears in the Proceedings for July 11th (pages 6648-9). Of the amount agreed upon, \$10,000.00 was paid on July 11th (File No. 4143) and the balance, namely, \$5,000.00, was paid on November 28th (File No. 4336). For the report on the final payment, see the Proceedings for November 28th (pages 6869-70).

On November 9th (page 6839), the Board ordered the advertisement for proposals for the construction of this bridge. No bids were received for this work during the year.

*South West Boulevard Bridge, Main Channel, Section "O." Double Roadway, Each 24 Feet Wide. Two Sidewalks, Each 6 Feet Wide. Length, 321 Feet. Weight of Steel and Iron in Structure, 1,458,809 Pounds. Benzette Williams, Contractor for Substructure. The J. G. Wagner Company, Contractor for Superstructure.*

This bridge was completed in the year 1899, but the records show that two transactions took place on this account during the year 1900.

The checking of the final notes for the hauling of the excavated material from Section "N" into the Southwest Boulevard and Douglas Park was entirely completed in the early part of the year and 5,852 cubic yards, representing an earning of \$1,170.40, was shown to have been due to Hayes Bros. et al, on their final estimate. The final voucher for this work, amounting to \$5,475.22, was issued on July 5th and passed by the Board on July 18th (File No. 4196). This final was issued on the last regular voucher to Hayes Brothers et al. for the excavation of Section "N" and is disposed of under the head of "Report in Reference to Settlement on Contract for Sections 'N' and 'O'" on page 6688 of the Proceedings for July 18th.

In the latter part of the year 1899, McArthur Brothers took from the site of this bridge 142.08 cubic yards of building stone that was left over at the time the substructure was completed. The payment for this material, namely, \$156.29, was made in the year 1900 and is a credit to the account of the South West Boulevard Bridge (file No. 3849).

On October 31st (pages 6828-9), the Board instructed the Chief Engineer to improve that part of Western Avenue which lies within the Sanitary District right of way, and appropriated the sum of \$250 for the same.

On November 14th (page 6851), the Chief Engineer asked the Board for further authority to make expenditures on this account and the Board authorized him to macadamize the roadway. On the same date (page 251 of his letter book), the Chief Engineer accepted the proposal of the Chicago Crushed Stone Co. to deliver and spread crushed stone along the approaches to this bridge at the rate of \$1.90 per cubic yard. This work was done in the month of December, but no vouchers were issued on this account during the year.

The condition of work on December 31st was as follows:

Account old design:

Excavation, 1,289 cubic yards at 45 cents.....	\$ 580 05
Piles driven, 4,809 lineal feet at 25 cents.....	1,202 25
Miscellaneous, extra labor and material.....	5,244 71
	<hr/>
	\$ 7,027 01
Less 142.08 cubic yards stone at \$1.10.....	156 29
	<hr/>

Total cost old design.....\$ 6,870 72

Account new design:

Excavation, 7,464.5 cubic yards at 49½ cents.....	\$ 3,694 93
Timber in foundation, 10,560 feet B. M. at \$28.60.....	302 02
Piles driven, 6,004 lineal feet at 27½ cents.....	1,651 10
Natural cement concrete, 711.5 cubic yards at \$5.00.....	3,557 50
Portland cement concrete, 1,670.61 cubic yards at \$7.31½.....	12,220 51
Masonry, 2,039.83 cubic yards at \$6.71.....	13,687 26
Bedford stone, lump sum.....	8,845 00
Coffer dam, lump sum.....	8,814 85
Recutting stone.....	4,034 43
Setting clamps and circular track.....	147 08
Excavating center pier below grade and additional material....	524 27
Maintaining coffer dam.....	218 30
Pumping and compensation account delays.....	198 20
Changes in substructure not covered by contract.....	116 00
Labor and material building approaches.....	2,745 44
Lump sum price for superstructure.....	53,045 06
	<hr/>

Total cost new design..... 108,801 95

Hauling material to Southwest Boulevard and Douglas Park, 178,045 cubic yards at 20 cents.....	35,600 00
Estimated prospective charges account extra work.....	4,300 00
Total estimated cost of bridge.....	\$155,581 67
Amount earned to January 1, 1901.....	151,281 67
Unfinished work and balance required to complete.....	\$ 4,300 00

*Eight Track Bridge, Main Channel, Section "O." Four Double Track Bascule Bridges of Scherzer Type, Each 150 Feet Span, Centers of Bearings, With Eight Double Track Approach Spans, Each 113 Feet, Centers of Bearings, Each Bridge Consisting of One Bascule Span With One Approach at Each End of Same. Total Length of Each Bridge, 454 Feet 3 3/4 Inches. Total Metal in Structure, 6,076,953 Pounds. McArthur Brothers Company, Contractor for Substructure. A. & P. Roberts Company, Contractor for Superstructure.*

With the exception of some trimming up, the work of the substructure for this bridge was completed in the middle of January.

The contractor for the substructure work had the following items vouchered on regular contract during the year:

Portland cement concrete, 1,028.37 cubic yards at \$5.50.....	\$5,656 04
Masonry, 33.83 cubic yards at \$12.00.....	405 96
Part of lump sum of \$65,000.00.....	500 00
	\$6,562 00
Less amount for furnishing cement.....	55 10
Total.....	\$6,506 90

In addition to the amount shown above this firm was paid during the year \$6,163.64 of the \$120,000.00 allowed in the year 1899, for the extra exertions required of it in order to complete the work at the earliest date.

This contractor did sundry extra work during the year in connection with this bridge, a schedule of which is as follows:

File No.	Nature of Work.	Amount.
3646	Construction of new dam east of trestles.....	\$2,108 47
3792	One-half of double time account working December 24 and 25, 1899.....	250 12
3905	Hauling cement from Robey Street to Campbell Avenue.....	\$1,021 13
	Removing and replacing wall in north abutment.....	77 80
	Resetting rear anchor rods.....	414 88
	Extra work done on ends of south pier.....	483 37
	Lowering foundation of two abutments.....	3,360 00
		5,357 18
1317	Extra concrete in center piers.....	\$ 209 18
	Material furnished account setting shoes and bolsters.....	121 90
		331 08
Total.....		\$8,046 85

The Thomas Moulding Company, which furnished the cement used in the substructure, under an agreement with the Sanitary District dated July 24, 1899, was given a final voucher in the month of February, amounting to \$295.75 (file No. 3716). This voucher shows that all of the cement sacks delivered by this firm at the site of the work were returned and a proper credit

received therefor. The number of sacks returned was 34,450 and the amount credited was \$3,445.00. This voucher also shows a credit of 25 barrels of cement, amounting to \$52.00 which was due to an overestimate of the last previous voucher issued. The total amount of cement delivered by the Thomas Moulding Company for use at this bridge was 10,475 barrels

and the total amount paid for same was \$21,788.00 (File No. 3716).

A small amount of cement was also purchased from Sears, Humbert & Co. for use in the regular substructure work. The material was delivered under order of the Chief Engineer, dated Nov. 13, 1899 (page 290 of his letter books), which called for "Giant" cement at \$2.15 per barrel. A voucher for \$1,093.50 (File No. 3645) was issued for the delivery of 450 barrels of cement and 1200 empty sacks, and passed by the Board on January 26th (page 6261).

In the beginning of the year 1900 it became necessary to remove the dam extending across the Main Channel east of Campbell Avenue, which was originally constructed for the purpose of keeping the foundation work dry. On January 11th (page 432 of his letter book) the Chief Engineer issued to The Greens Dredging Company the following order for its removal:

"I hereby accept your proposal under date of December 30, 1899, to excavate the dam across the Main Channel of the Sanitary District located between Western Avenue and Campbell Avenue and to remove the same from the right of way, lands and channel of the Sanitary District, subject to the following conditions: You shall begin the work called for by this order promptly upon receiving instructions from me to proceed and shall excavate at least 6,000 cubic yards within five (5) days thereafter, so as to give a cross-section for flow of not less than 2100 square feet. You are to be paid for the work covered by this order

forty-five (45) cents per cubic yard, scow measurement, subject to the following limitations: Should you fail to excavate 6000 cubic yards within the first five (5) days after receiving orders from me to proceed with the work, you shall remit fifteen (15) cents per cubic yard and receive for that amount of excavation only thirty (30) cents per cubic yard.

"It is further agreed that in the event of your being prevented by ice or other causes from depositing all or any part of the material covered by this order in Lake Michigan or such other dumping area as you may secure beyond the right of way, lands and channels of the Sanitary District, then you shall be permitted to dump said material in such part of the windage basin of the said District near Robey Street as I may designate, but as soon as may be you shall remove all material so dumped from the said windage basin and all such material shall be removed before the first day of June, 1900. On all material dumped in the windage basin as above provided, the District shall reserve the sum of twenty (20) cents per cubic yard until it is removed, as herein provided; after said removal, then all such reserved moneys shall be paid over to you in full settlement of the obligations of this order."

This order was accepted, work was begun immediately, and by the 22nd of January the dam was entirely removed. In the prosecution of this order this Company was put to some extra expense which is shown in the total cost of the work as per the following statement:

Excavation, 20,960 cubic yards at 45 cents.....	\$ 9,432 00
Time of dredge and crew waiting for orders, 24 hours at \$14.00.....	336 00
Removing sunken scow.....	290 00
Opening and closing Western Avenue bridge.....	72 00

Total.....	<u>\$10,130 00</u>
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In addition to the work done by the contractor for the substructure and by the several firms already cited, sundry labor and material was supplied during the year in connection with cleaning up the odds and ends of the substructure work and with the inspection of the sub and superstructure by the railroad companies in interest at this crossing. The nature and cost of these operations are shown in the following schedule:

File No.	Firm and Nature of Voucher.	Amount.
4242	American Bridge Co., iron plates account work not covered by plans.....	\$ 14 00
4290	Frank M. Montgomery, Agent, crushed stone account setting shoes and bolsters.....	74 94
4291	Dolese & Shepard, crushed stone account setting shoes and bolsters.....	118 25
4292	Illinois Steel Co., anchor rods for railroad companies.....	737 64
4378	Meacham & Wright, cement account setting shoes and bolsters.....	612 50
4315	A. & P. Roberts Co., labor and material account work not covered by plans..	583 17
3847	C. J. Ry. Co., inspection.....	154 74

<i>File No.</i>	<i>Firm and Nature of Voucher.</i>	<i>Amount.</i>
4379	C. T. T. R. R. Co., inspection.....	659 27
3722	Isham Randolph, pay roll, switching, etc., account supply of cement.....	250 40
3807	Isham Randolph, pay roll, switching, etc., account supply of cement.\$ 88 20	
	Isham Randolph, lumber account work not covered by plans..... 12 00	
		100 20
4321	Isham Randolph, pay roll, account setting shoes and bolsters.....\$319 58	
	Isham Randolph, switching, account work not covered by plans..... 3 00	
		322 58
4275	Isham Randolph, lumber account work not covered by plans.....\$ 10 50	
	Isham Randolph, switching charges account supply of cement..... 5 00	
	Isham Randolph, pay rolls account setting shoes and bolsters..... 558 24	
		573 74
4307	Isham Randolph, pay rolls account setting shoes and bolsters.....	245 25
4356	Isham Randolph, iron plates account work not covered by plans....\$ 13 28	
	Isham Randolph, pay rolls and switching account setting shoes and bolsters..... 619 31	
	Isham Randolph, pay rolls and switching account setting anchor rods for railroad companies..... 47 50	
		680 09
4385	Isham Randolph, pay rolls and switching account setting anchor rods for railroad companies.....	190 23
Total.....		\$5,317 02

On February 7th (pages 6285-6), a communication from the Scherzer Rolling Lift Bridge Company in reference to its contract for the superstructure of this bridge, was ordered placed on file. On the same date (page 6286) the Chief Engineer transmitted a communication to the Board in which he notified the Trustees that the contractor for the superstructure had made no progress and that the work was unnecessarily and unreasonably delayed, that the conditions of the contract were being violated and that the contract was not being fulfilled in good faith. On the same date (page 6286) the Board directed its President and Clerk to notify the contractor to proceed under its contract and to show satisfactory results or to forfeit the said contract.

On February 17th (page 6298) the Committee on Engineering reported the desirability of permitting the Scherzer Rolling Lift Bridge Company to assign its contract to the A. & P. Roberts Company, of Philadelphia, and recommended that the assent of the Sanitary District be given, and that the documents necessary to the carrying out of said assignment be executed. The Board adopted the report on the same date. All of the forms necessary to the assignment appear on pages 6299-6302 of the Proceedings and, as executed, bear date of February 17, 1900. On February 24th (page 6314) the Board approved the bonds of the Scherzer Rolling Lift Bridge Company in the sum of \$35,000.00 (in lieu of

the one for \$70,000.00) and of the A. & P. Roberts Company in the sum of \$70,000.00.

On February 19th (pages 1 to 4 of his letter book) the Chief Engineer issued the following order to the A. & P. Roberts Company:

"WHEREAS, The Scherzer Rolling Lift Bridge Company did, on the 9th day of August, A. D., 1898, contract with the Sanitary District of Chicago for all of the materials, workmanship and erection of an eight-track bridge structure over and across its Main Channel on the line of Campbell Avenue, in the City of Chicago; and,

"WHEREAS, The said Scherzer Rolling Lift Bridge Company did, on the 12th day of July, 1899, segregate all of the substructure work of said eight-track bridge and assign the same, together with all work collateral thereto, to the McArthur Bros. Co., which said assignment was consented to by the Sanitary District of Chicago; and,

"WHEREAS, The said Scherzer Rolling Lift Bridge Company has, the 17th day of February, 1900, assigned all of the remainder of said contract of August 9, 1898, to the A. & P. Roberts Company, of Philadelphia, Pa., said assignment being intended to cover all of the iron and steel work of the said bridge, erected and ready for traffic, in accordance with the terms of the aforesaid contract and the requirements of the railroads, for whose use the said bridge is being constructed, as the

same have been shown upon plans and on statements heretofore made by Ralph Modjeski acting for, and on behalf of, said railroads; and,

"WHEREAS, The Sanitary District of Chicago has consented to said assignments; and,

"WHEREAS, The Sanitary District of Chicago urgently needs the completion of said bridge at the earliest date possible, to the end that it may carry out and perform all of its contract obligations to the three (3) several railroads, for whose use the said bridge is being constructed, and may, by such performance of its said contract obligations, be relieved of the responsibilities and risks attaching to the use of the temporary structures constructed by said District across its channel for the service of said railroad companies; and,

"WHEREAS, The said District now calls upon the A. & P. Roberts Company, Assignees, to prosecute the said work with such unusual diligence and vigor as to secure the completion of half of said structure so that four tracks of the railroads may be put into use across the same on or before October 1, 1900, and the completion of the whole structure on or before December 15, 1900; and,

"WHEREAS, Compliance with these requirements of the Sanitary District will, and must, involve a large expenditure on the part of these assignees in excess of the cost to which they would be put if allowed to prosecute the said work under ordinary conditions and in the time which would ordinarily be allowed for a work of this magnitude; and,

"WHEREAS, All of these questions have been discussed before the Engineering Committee of the Board of Trustees; and,

"WHEREAS, It has been conditionally agreed that the sum to be paid the A. & P. Roberts Company in excess of the sum named in the original contract for carrying on the work under the conditions hereinbefore named, shall be seventy-five thousand dollars (\$75,000.00);

"Now therefore, I, as Chief Engineer of the Sanitary District of Chicago, acting under and in accordance with the authority vested in me by the aforesaid contract of August 9, 1898, do hereby direct you to proceed to perform and carry out all of the provisions of the said contract to you assigned by the Scherzer Rolling Lift Bridge Company, and to complete the same in accordance with the plans therefor as revised

and amended to suit the requirements of the railroad companies, for whose use the said bridge is being constructed, as the same have been revised, amended and approved by Ralph Modjeski, expert bridge engineer, acting for and on behalf of the said railroad companies. You are to complete one-half of said bridge so that four tracks may be operated across the same on or before October 1, 1900, and to complete the entire structure, so that the same may be used by the railroads on or before December 15th of the same year; and for this service, I fix the additional sum to be paid you in excess of the original contract price as seventy-five thousand dollars (\$75,000.00), which sum, added to the original contract price of one hundred and seventy-five thousand dollars (\$175,000.00), shall be accepted by you in full compensation for all material, labor, cost or expense of every name or nature to you arising or growing out of your acceptance of this order.

"Payments are to be made to you as follows: Sixty (60) per cent of the value of all structural material delivered upon the site of the work shall be paid you upon the certificate of the Engineer within twenty (20) days of the time of such delivery, and upon completed work payments shall be made semi-monthly in the ratio that said completed work bears to the whole contract price, less amounts paid on material and less twelve and one-half (12½) per cent of said value, which percentage shall be reserved by the Sanitary District until the whole work is completed, as called for by this order, when the reservation shall be paid in the manner provided for in the contract to you assigned."

This order was accepted on the same date, work was begun on July 3rd and continued to the end of the year, at which time all of the bridges were erected except the west Pan Handle span. The amount earned by the contractor on this account was \$222,907.32 (File No. 4366).

The inspection of the metal work for this bridge was carried on by Robert W. Hunt & Co., under authority of the Board, dated May 16th (page 6553) at 70 cents per ton for the mill and shop work, and 40 cents per ton for the field work.

As was stated in the Annual Report of this Department for the year 1898 (see page 5721 of the Proceedings), an eight-track girder system that was intended to form part of a fixed bridge at this crossing, was rendered unserviceable on account of the

abandonment of the fixed bridge policy and that a portion of it was used at the C., M. & N. Ry. Co.'s crossing over Kedzie Avenue. During the year 1900 another opportunity presented itself to use three

of these girders at the Santa Fe crossing of Stevens Street, Lemont. The price fixed upon for the sale of these girders was \$3,821.30, and is a credit to the eight-track bridge.

A summary of the earnings during the year on account of this bridge is as follows:

McArthur Brothers Company.....	\$ 20,717 39
A. & P. Roberts Company.....	223,490 49
Sundry firms.....	12,460 35
	<hr/>
	\$256,668 23
Less value of girders transferred to Stevens Street subway.....	3,821 30
	<hr/>
Total.....	\$252,846 93

The condition of work on December 31st was as follows:

Portland cement concrete, 11,928.37 cubic yards at \$5.50.....	\$ 65,606 04
Masonry, 2,728.83 cubic yards at \$12.00.....	32,745 96
Lump sum for auxillary work.....	65,000 00
Lump sum for rush work.....	120,000 00
Construction and removal of dam east of bridge.....	12,922 26
Construction, maintenance and pumping of coffer dams.....	2,352 13
Cutting anchor rods in piers.....	71 76
Extra pay for cutting stone on holidays.....	250 12
Cost of supplying cement.....	26,776 65
Changes in substructure not covered by contract.....	5,396 85
Setting shoes and bolsters.....	2,907 72
Setting anchor rods for railroad companies.....	785 14
Inspection, etc., by railroad companies.....	1,365 45
Cost of Scherzer rolling lift bridge design.....	35,000 00
Cost of Strobel design.....	3,000 00
Cost of abandoned girder system and removal of same.....	22,800 85
Lump sum price for superstructure complete.....	250,565 00
Prospective charges account new alignment, interlocking system, etc.....	100,000 00
	<hr/>
	\$747,545 93

Less credits as follows:

Portland cement furnished, 10,906.25 barrels at \$2.00.....	\$21,812 50
Cement sacks not returned, 926 at 10 cents.....	92 60
Three girders transferred to Kedzie Avenue viaduct.....	4,090 00
Three girders transferred to Stevens Street subway.....	3,821 30
	<hr/>
	29,816 40

Estimated cost of bridge.....	\$717,729 53
Amount earned to January 1, 1901.....	590,071 85
	<hr/>
Unfinished work.....	\$127,657 68
Reserved percentage.....	11,371 68
Unpaid vouchers.....	190 25
	<hr/>
Balance required to complete.....	\$139,219 61

*California Avenue Bridge, Main Channel,  
Section "O."*

On June 20th (page 6624-5) the Board authorized the construction of a bridge across the Main Channel on Section "O" at California Avenue. On June 29th (pages 6635-6), Trustee Eckhart presented

to the Board a minority report in opposition to the construction of a bridge at this point, which was ordered printed and placed on file. On November 9th (page 6839), the Board authorized the advertisement for proposals for the construction of this bridge. No bids were received during the year.



*Chicago, Madison and Northern Railroad Company's Bridge, Main Channel, Section "N." Double Track. Length, 479 Feet, 6 Inches. Weight of Iron and Steel in Structure, 2,511,140 Pounds. McArthur Brothers Company and Winston and Company, Contractors for Substructure. The Toledo Bridge Company, Contractor for Superstructure.*

On February 7th (pages 6279-80), the Board ordered the release of the bond on the contract for the superstructure of this bridge.

The Block-Pollock Iron Company concluded the purchase of the steel that came into the possession of the Sanitary District by the abandonment of the temporary tracks

of the C., M. & N. R. R. Co., and the amount paid during the year was \$739.81. In this connection Hayes Brothers did some tearing up and loading of rails during the month of February, at a cost to the District of \$152.79 (File No. 3829). Switching charges in the same connection, to the amount of \$20.00, were paid by the Chief Engineer (File Nos. 4064 and 4115).

The Illinois Central Railroad Company finished the work in connection with the new alignment at this crossing in the year 1899, but a final voucher was not rendered until the month of December, 1900. The amount vouchered to this Company during the year was \$12,474.76 (File Nos. 3698 and 4391).

The condition of work on December 31st was as follows:

Excavation, 14,873 cubic yards at 36 cents.....	\$ 5,354 28
Timber in foundations, 17,712 feet B. M. at \$22.00.....	389 66
Piles delivered, 9,791 lineal feet at 14 cents.....	1,370 74
Piles driven, 5,948 lineal feet at 6½ cents.....	386 62
Natural cement concrete, 249.77 cubic yards at \$3.30.....	824 24
Portland cement concrete, 1,747.7 cubic yards at \$5.00.....	8,738 50
Masonry, 2,239.3 cubic yards at \$9.40.....	21,049 42
Raising the A., T. & S. F. Ry. Co.'s tracks near Kedzie Avenue.....	13,950 65
Construction of embankment for new alignment.....	10,880 81
Ballasting new alignment.....	36,567 25
Repairing south abutment.....	1,094 88
Removing steel from old alignment.....	361 31
Payment for use of land and fencing in of same.....	158 16
Extra cost Main Channel excavation.....	9,961 00
Lump sum price for superstructure, including extra bills amounting to \$1,367.39.....	72,531 39
Iron covers over center piers.....	9 88
	<hr/>
	\$183,629 29
Less amount received from sale of old rails and scrap iron.....	2,850 75
	<hr/>
Total cost of bridge.....	\$180,777 54
Amount earned to January 1, 1901.....	180,777 54
	<hr/>
Unpaid vouchers and balance required to complete.....	\$ 4,589 10

On February 7 (page 6279) the Board approved the reduced bond on the contract for the superstructure, said reduction having been authorized on August 2, 1899 (page 5970).

*Chicago, Madison and Northern Railroad Company's Viaduct Over Kedzie Avenue, Section "N." Double Track Plate Girder. Length, 80 Feet. Weight, 200,400 Pounds. McArthur Brothers Company and Winston & Co., Contractors for Substructure. The Kelly-Atkinson Construction Company, Contractor for Superstructure.*

This viaduct was entirely completed in the year 1899 at a total cost of \$13,002.95. The schedule for all the work done appears in the Annual Report for the year 1899 (see page 87 of appendix to the proceedings for December 26, 1900).

*Kedzie Avenue Bridge, Main Channel, Section "N." Single Roadway, 21 Feet Wide. Two Sidewalks, Each 5 Feet Wide. Length, 324 Feet 6 Inches. Weight of Metal in Structure, 640,525 Pounds. Chicago Star Construction and Dredging Company, Contractor for Substructure. The King Bridge Company, Contractor for Superstructure.*

This bridge was put in use for traffic in the year 1899. In the month of February in

the year 1900 Hayes Brothers made certain repairs to the approaches. This work was done under verbal orders of the Chief Engineer at a cost to the District of \$192.80 (File No. 3904).

A revised statement of the condition of work on December 31st is as follows:

Excavation, 5,380 cubic yards at 35 cents.....	\$ 1,883 00
Natural cement concrete, 278.84 cubic yards at \$3.25.....	906 23
Portland cement concrete, 1,263.32 cubic yards at \$5.00.....	6,316 60
Masonry, 1,344.68 cubic yards at \$6.90.....	9,278 29
Extra labor account spring under pier.....	27 73
Extra stone cutting on abutment.....	23 50
Building and repairing approaches to bridge.....	1,001 36
Extra cost Main Channel excavation.....	2,808 10
Lump sum price for superstructure.....	21,315 00

Total cost of bridge.....\$43,559 81

Amount earned and paid to January 1, 1901.....43,559 81

*The Atchison, Topcka and Santa Fe Railway Company's Bridge, Main Channel, Section "N," Double Track. Length, 327 Feet 8 Inches. Weight of Iron and Steel in Structure, 1,519,183 Pounds. McArthur Brothers Company and Winston & Co., Contractors for Substructure. The Carnegie Steel Company, Limited, Contractor for Superstructure.*

All of the work in connection with this bridge was completed in the year 1899, but a number of bills covering same were not vouchered until 1900. The items vouchered during the year are as follows:

<i>File No.</i>	<i>Name and Nature of Voucher.</i>	<i>Amount.</i>
3644	Hayes Brothers, labor revetting slope in front of south abutment.....	\$543 81
3763	The A., T. & S. F. Ry. Co., labor loading rip-rap account revetting slope in front of south abutment.....	\$135 47
	The A., T. & S. F. Ry. Co., labor raising, surfacing and lining Illinois Central crossing.....	69 78
		<u>205 25</u>
3923	The A., T. & S. F. Ry. Co., labor loading rip-rap account revetting slope in front of south abutment.....	187 50
	Total.....	<u>\$936 56</u>

A revised statement of the condition of work on December 31st is as follows:

Excavation, 5,676 cubic yards at 36 cents.....	\$ 2,043 36
Timber in foundations, 9,408 feet B. M. at \$22.00.....	206 98
Piles delivered, 5,030 lineal feet at 14 cents.....	704 20
Piles driven, 4,544 lineal feet at 6½ cents.....	295 36
Portland cement concrete, 1,331.48 cubic yards at \$5.00.....	6,657 15
Masonry, 1,157.93 cubic yards at \$9.40.....	10,884 54
Transferring piles from C. T. T. R. Co.'s bridge.....	239 26
Building box drain under "Y" track.....	19 47
Extra cost main channel excavation.....	2,497 20
Cost of embankment for new alignment.....	406 87
Track laying and ballasting new alignment.....	1,226 05
Raising tracks of main line near 26th Street line crossing.....	11,576 55
Revetting slope in front of south abutment.....	866 78
Lump sum price for superstructure, less \$310.88 as per agreement.....	43,931 12
Iron cover for center piers.....	19 67

Total cost of bridge.....\$81,574 56

Amount earned and paid to January 1, 1901.....81,574 56

*Belt Railway Company of Chicago's Bridge, Main Channel, Section "K." Four Tracks. Length, 340 Feet 2 Inches. Weight of Iron and Steel in Structure, 2,691,349 Pounds. The Toledo Bridge Company, Contractor for Substructure and Superstructure.*

The center pier of this bridge was completed in the month of January, the south abutment was practically completed in March and the north abutment (thereby completing the substructure contract) in July. The following schedule shows the earnings for the year on the substructure contract:

Excavation, abutments, 7,564 cubic yards at 45 cents.....	\$ 3,403 80
Excavation, center pier, 1,380 cubic yards at 72 cents.....	993 60
Excavation, north berm (verbal order of Chief Engineer), 625 cubic yards at 30c.....	187 30
Portland cement concrete, abutments, 929.5 cubic yards at \$5.60.....	5,205 20
Portland cement concrete, center pier, 7.2 cubic yards at \$8.96.....	64 51
Masonry, abutments, 1,051.68 cubic yards at \$11.00.....	11,568 48
Masonry, center pier, 191.8 cubic yards at \$17.60.....	3,375 08
One-half double time for working on December 24 and 25, 1899.....	93 15
Filling core of center pier.....	567 81
	<hr/>
	\$25,459 73
Less 21,780 feet B. M. of lumber furnished by Sanitary District at \$10.00.....	217 80
	<hr/>
Total.....	\$25,241 93

On July 18 (page 6685) the Board passed on the final voucher for the substructure contract, amounting to \$11,302.35, and ordered same to be paid (File No. 4184). The final certificate of the Chief Engineer appears on pages 6685-6 of the Proceedings.

A final voucher for \$87.98 was issued to the Thomas Moulding Company for the supply of cement for the substructure of this bridge (File No. 3713). No cement was delivered during the year, but 199 empty sacks were returned and a credit of \$19.90 was given the District for same.

Under orders of the Chief Engineer, John Ries filled certain material into the south approach to this bridge in the month of June at 38 cents per cubic yard. A voucher was issued to him for 764 cubic yards, representing an earning of \$290.32 (File No. 4109). In the month of July this same party was again ordered to fill into the north approach at 40 cents per cubic yard. A voucher was issued to him for 670 cubic yards, representing an earning of \$268.00 (File No. 4226).

The work of revetting the slope of the south abutment of this bridge, which work was begun in the month of December, 1899, was continued and completed in the month of January, 1900. The following vouchers were issued on this account during the year:

<i>File No.</i>	<i>Firm and Nature of Voucher.</i>	<i>Amount.</i>
3626	Joseph F. Haas, Clerk, pay rolls.....	\$1,118 75
3680	Hercules Powder Co., powder.....	56 00
3923	The A., T. & S. F. Ry. Co., loading rock on cars at Smith & Eastman's siding.....	58 50
	The A., T. & S. F. Ry. Co., rental of engine and wages of crew.....	41 47
8722	Isham Randolph, freight, labor and transportation.....	178 56
4302	Isham Randolph, labor and transportation.....	60 00
	<hr/>	
Total.....		\$1,513 28

The McArthur Brothers Co. did a small amount of extra stone cutting, labor and teaming in connection with this bridge which was not included in the contract with the Toledo Bridge Company. The cost of this work, amounting to \$10.58, was paid by check by the Chief Engineer and reimbursed by the District (File No. 4307).

Operations were begun on the superstructure in the month of April and the work was entirely completed in November. This bridge was put in operation on December 12. Two vouchers were issued on this account during the year as follows: On July 18 (pages 6677-8) the Board authorized the payment of a voucher for \$25,720.00, said amount being the difference between what was paid in the year 1899 and 60 per cent of the total contract price (File No. 4147). The second and final voucher for the work, amounting to \$52,673.17,

was issued on December 5 and passed by the Board on December 12 (page 4355). The final voucher included an extra item amounting to \$193.17. The final certificate of the Chief Engineer appears on page 6909 of the Proceedings.

The dates and subjects of the correspondence of the Chief Engineer to this company for the year are given in the following schedule:

<i>Date.</i>	<i>Subject.</i>	<i>Page of Letter Book.</i>
May 21	Issuance of voucher for 60 per cent of superstructure price.....	229
July 6	Issuance of voucher for 60 per cent of superstructure price.....	356
July 30	Payment of wages to men on work.....	453
July 31	Amount of wages to be paid men on work.....	455
Aug. 2	Claims of employes.....	460
Aug. 2	Request for adjustment of trouble at Belt crossing.....	463

A number of vouchers were issued to the Belt Railway Company of Chicago for work done in connection with the inspection of the bridge while undergoing construction and its new alignment of tracks. The amount vouchered during the year was \$4,264.71 (File No. 4377). Of this amount an item of \$86.41 for a stub switch furnished the Toledo Bridge Company was repaid to the district, making a net earning to the railroad company for the year of \$4,178.30.

A summary of the earnings for the year on account of this bridge is as follows:

Toledo Bridge Company, substructure.....	\$25,241 93
Toledo Bridge Company, superstructure.....	78,393 17
	<hr/> \$103,635 10
Sundry firms.....	6,240 58
	<hr/>
Total.....	<u>\$109,875 68</u>

The condition of work on December 31st was as follows:

Excavation, abutments, 10,714 cubic yards at 45 cents.....	\$ 4,821 30
Excavation, center pier, 2,580 cubic yards at 72 cents.....	1,857 60
Excavation, north berm, 625 cubic yards at 30 cents.....	187 50
Piles delivered, 7,254 lineal feet at 16 cents.....	1,160 64
Portland cement concrete, abutments, 1,459.5 cubic yards at \$5.60.....	8,173 20
Portland cement concrete, center pier, 1,487.2 cubic yards at \$8.96.....	13,325 31
Masonry, abutments, 1,151.68 cubic yards at \$11.00.....	12,668 48
Masonry, center pier, 401.8 cubic yards at \$17.60.....	8,655 68
Revetting slope of south abutment.....	2,421 78
Filling of approaches.....	558 32
Work on substructure not covered by contract prices.....	671 54
Cost of supplying cement.....	699 30
Bridge inspection, etc., by railroad company.....	1,210 63
Labor and material account new alignment.....	3,315 82
Lump sum price for superstructure (including \$193.17 for test bars).....	131,393 17
Prospective charges account new alignment, etc.....	40,000 00
	<hr/>
Total.....	<u>\$231,120 27</u>

Less credits as follows:

Portland cement furnished, 290 barrels at \$2.08.....	\$603 20
Cement sacks, 1,160 at 10 cents.....	116 00
Switching charges on cement.....	6 00
Lumber furnished, 21,780 feet B. M. at \$10.00.....	217 80
	<hr/>
	943 00

Estimated cost of bridge.....	\$230,177 27
Amount earned to January 1, 1901.....	190,177 27
	<hr/>
Balance required to complete.....	<u>\$ 40,000 00</u>

*The Atchison, Topeka and Santa Fe Railway Company's Bridge, Main Channel, Section "G." Double Track. Length, 572 Feet, 6½ Inches. Weight of Iron and Steel in Structure, 1,724,636 Pounds. McArthur Brothers Company and Winston and Company, Contractors for Substructure. The Carnegie Steel Company, Contractor for Superstructure.*

All of the work in connection with this bridge was completed in the year 1899 at a total cost of \$114,305.72. The schedule for all the work done appears in the Annual Report for 1899 (see page 88 of appendix to the Proceedings for December 26, 1900).

*The Atchison, Topeka and Santa Fe Railway Company's Bridge, Desplaines River, Section "F." Double Track. Six Plate Girder Spans, Each 62 Feet and 1 Inch. Weight of Steel in Structure, 499,830 Pounds.*

This bridge was built by the Santa Fe Co. in the year 1898, at a proportionate cost to the District of \$19,210.73. For last reference see Annual Report for 1899, page 88 of appendix to the Proceedings for December 26, 1900.

*Lyons-Summit Road Bridge, Main Channel, Section "F." Single Roadway, 18 Feet Wide. Length, 323 Feet, 10 Inches. Weight of Steel and Iron in Structure, 570,690 Pounds. McArthur Brothers Company and Winston and Company, Contractors for Substructure. C. L. Strobel, Contractor for Superstructure.*

On February 7th (pages 6279-81) the Board released the bond on the contract for the superstructure of this bridge.

This bridge was entirely completed in the year 1899 at a total cost of \$41,193.18. The schedule for all the work done appears in the Annual Report for 1899 (see page 89 of appendix to the Proceedings for December 26, 1900).

*Lyons-Summit Road Bridge, Desplaines River, Section "E." One 200 Feet Span. Single Roadway, 18 Feet Wide. Weight of Steel and Iron in Structure, 114,000 Pounds. Halvorsen, Richards and Company, Contractors for Substructure. Massillon Bridge Company, Contractor for Superstructure.*

All the work in connection with this bridge was completed in the year 1899 at a total cost of \$13,220.47. The schedule for all the work done appears in the Annual Report for 1899 (see page 89 of appendix to the Proceedings for December 26, 1900).

*Chicago Terminal Transfer Railroad Company's Bridge, Main Channel, Section "E." Double Track. Length 316 Feet, 7 Inches. Weight of Steel and Iron in Structure, 10,051,924 Pounds. McArthur Brothers Company and Winston and Company, Contractors for Substructure. Wisconsin Bridge and Iron Company, Contractor for Superstructure.*

Although the C. T. T. R. R. Co. had finished the work of grading the tracks and changing its interlocking system in the year 1899, several bills for work done in the years 1898 and 1899 were not vouchered until 1900. On April 20th a voucher was issued on this account to the amount of \$232.94 (File No. 3944) and passed by the Board on May 9th (page 6452).

A revised statement of the condition of work on December 31st is as follows:

Excavation, 3,554.1 cubic yards at 46 cents.....	\$ 1,634 80
Sheet piling and bracing, 2,532 feet B. M. at \$31.00.....	78 49
Timber in foundation, 3,672 feet B. M. at \$22.00.....	80 78
Piles delivered, 1,650 lineal feet at 14 cents.....	231 00
Piles driven, 1,166.5 lineal feet at 10 cents.....	116 65
Natural cement concrete, 238.27 cubic yards at \$3.50.....	833 95
Portland cement concrete, 693.13 cubic yards at \$5.00.....	3,465 65
Masonry, 1,231.39 cubic yards at \$9.40.....	11,575 07
Lump sum price for superstructure (including extra material amounting to \$53.95).....	28,930 95
Iron covers for piers.....	9 37
Labor and material account new alignment.....	3,961 89

Total cost of bridge.....\$30,018 60  
Amount earned and paid to January 1, 1901..... 50,018 69

*Chicago Terminal Transfer Railroad Company's Bridge, Desplaines River, Section "E." Double Track. One Span, Center to Center of End Pins. Heldmaier & Neu, Contractors for Substructure. Wisconsin Bridge and Iron Company, Contractor for Superstructure.*

The work of the C. T. T. R. Co. in connection with its new alignment for this crossing was concluded in the month of January, and the vouchers issued during the year on account of these operations amounted to \$8,777.56 (File No. 3922).

On March 28 (page 6382) a communication from the City Trust, Safe Deposit and Surety Company of Philadelphia, requesting a release of the bond on the contract for the substructure, was referred to the Committee on Finance, and on May 23 (pages 6569-70) the Board authorized the release of said bond.

A revised statement of the condition of work on December 31st is as follows:

Excavation, 1,956 cubic yards at 65 cents.....	\$ 1,271 40
Excavation, 1,433 cubic yards at 45 cents.....	644 85
Sheet piling and bracing, 11,996 feet B. M. at \$25.00.....	299 90
Masonry removed, 140.78 cubic yards at \$2.25.....	316 76
Portland cement concrete, 221.17 cubic yards at \$8.50.....	1,879 95
Masonry, 432.27 cubic yards at \$7.60.....	3,285 25
Extra stone furnished.....	218 02
Building crib for wing wall.....	31 14
Lump sum price for superstructure.....	7,318 00
Raising three spans.....	750 00
Labor and material account new alignment.....	8,777 56

Total cost of bridge.....\$24,792 83

Amount earned and paid to January 1, 1901.....24,792 83

*Willow Springs Road Bridge, Main Channel, Section 1. Single Roadway 20 Feet Wide, Length, 306 Feet 1 1/4 Inches. Weight of Steel and Iron in Structure, 339,294 Pounds. Counterweight, 209,040 Pounds. Sackley & Peterson, Contractors for Substructure. C. L. Strobel, Contractor for Superstructure.*

This bridge was completed in the year 1899. On February 7, 1900 (pages 6279-80), the Board released the bond on the contract for the superstructure.

In accordance with the terms of an ordinance passed by the Board of Trustees of the Village of Spring Forrest on September 12, 1900, it became necessary to construct a 5 feet 4 inches plank sidewalk along the Willow Springs Road from the I. & M. Canal to the Desplaines River. It was found necessary also to make certain holes in the grade line of the bridge in order to drain the water that would stand on the bridge after it rained. On November 2nd (pages 217-18 of his letter book) the Chief Engineer ordered Geo. S. Kellar of Willow Springs to furnish the material and construct the sidewalk at 37 cents per lineal foot and to make the holes in the bridge for the lump sum of five dollars. This work was done in the month of November and 524 lineal feet of the sidewalk was constructed at a cost to the District of \$193.88. The total amount earned on these two accounts was \$198.88 (File No. 4357).

A revised statement of the cost of this bridge and its approaches to December 31st is as follows:

Excavation, 1,233 cubic yards at \$1.00.....	\$ 1,233 00
Excavation, 851 cubic yards at 40 cents.....	340 40
Piles delivered and driven, 400 lineal feet at \$1.00.....	400 00
Portland cement concrete, 179.4 cubic yards at \$5.00.....	897 00
Masonry, 419.2 cubic yards at \$11.50.....	4,820 80
Changing Willow Springs Road.....	114 71
Changing alignment of temporary bridge.....	112 61
Extra cost of saved dimension stone.....	60 00
Building sidewalk, 524 lineal feet at 37 cents.....	193 88
Making drainage holes in bridge.....	5 00
Lump sum price for superstructure.....	14,990 00

Total cost of bridge.....\$23,167 40

Amount earned and paid to January 1, 1901.....23,167 40

*The Atchison, Topeka and Santa Fe Railway Company's Bridge, Main Channel, Section 8. Double Track. Length 398 Feet, 6 Inches. Weight of Steel and Iron in Structure, 2,315,656 Pounds. Counterweight, 858,645 Pounds. McArthur Brothers Company and Winston and Company, Contractors for Substructure. Carnegie Steel Company, Limited, Contractor for Superstructure. Stevens Street Subway and Santa Fe Crossing of Same. Sackley and Peterson, Contractors for Subway.*

This bridge was completed in the year 1899. Mason, Hoge, King and Company practically completed their contract for the construction of the Santa Fe Railway embankment in the year 1899, but the final notes were not completely checked until the year 1900. The items vouchered to this firm during the year are as follows:

Embankment, 4,295 cu. yds. at 25c.	\$1,073.75
Removal of soil in order to swing Bridge, 314 cu. yds. at 25c.	78.50
Excavation for railroad grade, 114 cu. yds. at 63c.	71.82
Total	<u>\$1,224.07</u>

On March 21st (page 6352) the final voucher for Mason, Hoge, King & Co., amounting to \$7,604.42, for the building of the railway embankment and work collateral thereto, was presented to the Board and referred to the Committee on Engineering. On April 11th (pages 6415-16) the Board passed the said voucher, of which amount \$3,717.04 was for work done on account of the bridge crossing the Main Channel, divided as follows: Earnings for the year 1900, \$1,224.07; reserved percentage, \$2,492.97. A reserved percentage for sundry work done in connection with the Stevens Street Subway, amounting to \$155.45, was also included in the final voucher (File No. 3875). The final certificate of the Chief Engineer appears on page 6416 of the Proceedings.

As was stated under the head of "Section 8" of this report, Mason, Hoge, King & Co. filed certain claims with the Chief Engineer, for work done under their contract, that the Chief Engineer reported to the Board on same and that on July 18th (pages 6684-5) the Board authorized the payment of the amount allowed by the Chief Engineer. Of the amount authorized to be paid these

contractors an item of \$6.04 for lowering the grade of the Santa Fe embankment, was charged to this bridge (File No. 4149).

As was stated in the last Annual Report under this head, the contractors for Stevens Street Subway were prevented from continuing operations in the latter part of October, 1899, on account of an injunction of the Lemont Highway Commissioners against further procedure until more satisfactory arrangements were entered into between them and the Sanitary District. This matter was satisfactorily adjusted on May 23, 1900 (see pages 6576-7 of the Proceedings of the Sanitary District of that date), and the contractors resumed work and finished in the latter part of June. The items issued to Sackley & Peterson on regular vouchers during the year are as follows:

Excavation, 1,110 cu. yds. at \$1.50.	\$1,665.00
Portland Cement Concrete, 699 cu. yds. at \$8.00.	559.20
Grading road to the A., T. & S. F. Ry. Co.'s Station, 54 cu. yds. at 25c.	13.50
	<u>\$2,237.70</u>

Less overestimate of masonry, 17.8 cu. yds. at \$11.50.

Total \$2,033.00

On July 18th (pages 6686-7) the Board passed the final voucher for all work done by these contractors on regular contract, amounting to \$4,704.11 (File No. 4150). Of this amount \$3,737.69 was for work in connection with the track diversion and with the Stevens Street Subway, divided as follows: Stevens Street Subway earnings, \$1,665.00, reserved percentage, \$2,015.44; track elevation earnings, \$13.50, reserved percentage, \$43.75. Owing to the fact that these contractors had certain claims pending against the District at the time, they refused to execute a final receipt for all moneys due them from the District, and on September 5th (pages 6729-30) the Board authorized the payment of the amount shown on the final voucher, without the execution of the final receipt.

These contractors did sundry extra work in connection with the subway which was vouchered during the year and which is shown in the following schedule:

<i>File No.</i>	<i>Nature of Voucher.</i>	<i>Amount.</i>
3699	Sharpening tools.....	\$ 8 03
	Building iron pipe railing on masonry wall.....	306 77
	Furnishing oil and placing lanterns at subway.....	25 30
		<u>\$340 10</u>
3808	Making temporary crossing.....	255 93
	Total.....	<u>\$596 03</u>

On July 18th (page 6689), these contractors presented to the Board certain claims against the District, amounting to \$3,377.17, which were referred to the Committee on Engineering. On September 10th (page 61 of his letter book), the Chief Engineer reported to the said Committee upon these claims and allowed \$1,046.00 of the amount asked for. On October 10th (page 6795) the Board authorized the payment of this amount to the contractors in full settlement for all claims of every description growing out of the contract dated August 19, 1898. Of the total amount awarded,

\$500.00 was for the inconvenience to which the contractors were subjected by reason of the manner in which the masonry had to be built. The balance, namely, \$546.00 will be considered under the head of the Lemont Highway Bridge over the Main Channel, Section 8 (File No. 4300).

The work of finishing up the odds and ends of the Stevens Street Subway was done on Sanitary District force account in the months of June and July. The vouchers issued on this account are shown in the following schedule:

<i>File No.</i>	<i>Firm and Nature of Voucher.</i>	<i>Amount.</i>
4124	Wilcox Brothers, oak timber for fence.....	\$ 51 00
4125	Fred Boehme, sand account parapet wall.....	18 38
4153	S. L. Derby Lumber Co., lumber for forms account parapet wall.....	27 05
4154	Barrett Hardware Co., pipe, etc., account fence.....	187 43
4156	Western Stone Co., crushed stone for roadway and parapet wall.....	135 20
4152	Jos. F. Haas, Clerk, pay rolls account work on approaches.....	168 50
4155	A. R. Porter, Clerk, pay rolls account fence and parapet wall.....	87 88
4173	Isham Randolph, Chief Engineer, pay rolls and freight account sundries.....	269 25
4275	Isham Randolph, Chief Engineer, freight, hardware, sand, etc., account sundries.....	37 20
4307	Isham Randolph, Chief Engineer, protecting railroad tracks account parapet wall.....	2 53
	Total.....	<u>\$984 42</u>

During the year the Chief Engineer paid two small bills for work done at this point. One was from the Lemont Electric Light and Power Company, for moving its wires from the line of the Santa Fe track deviation, and amounted to \$15.00. The other was from the A., T. & S. F. Ry. Co. for unloading ties for the Stevens Street crossing, and amounted to \$4.76. These amounts were returned to the Chief Engineer on his monthly expense vouchers (File Nos. 3722 and 4064).

The A., T. & S. F. Ry. Co. continued operations on its change of line at this point and on the placing of girders across the Stevens Street Subway. The work of track deviation was practically completed at the

end of the year 1899 and of the Stevens Street Subway in July, 1900. Seven vouchers, aggregating \$13,320.16, were issued to this Company on these accounts during the year (File No. 4369). Most of the bills covering the work done at the Stevens Street Subway were not vouchered in the year 1900, because a final settlement between the Railroad Company and the Sanitary District was not yet effected.

As was stated under the head of "Eight Track Bridge" in this report, three of the girders originally intended for use at the Pan Handle crossing, were transferred to the Santa Fe crossing of the Stevens Street Subway, and that the amount charged to the Subway was \$3,821.80.



A summary of the amounts earned and vouchered during the year on account of the Main Channel bridge and the Subway is as follows:

Mason, Hoge & Co.....	\$ 1,230 11
Sackley & Peterson.....	3,129 03
Sundry firms, etc.....	18,145 64
Total.....	<u>\$22,504 78</u>

The condition of the work on December 31st was as follows:

Bridge across Main Channel:

Excavation, 1,020 cubic yards at 50 cents.....	\$ 510 00
Portland cement concrete, 369.66 cubic yards at \$5.50.....	2,033 13
Masonry, 447.41 cubic yards at \$12.00.....	5,368 92
Excavation in front of north abutment, 1,232 cubic yards at 22c..	271 04
Excavation of spoil in order to swing bridge, 314 cubic yards at 25c.....	78 50
Watching and inspecting bridge.....	60 90
Lump sum price for superstructure, less \$19,000 for delinquency.	57,185 00
Extra material in superstructure, 11,545 pounds at 2.55c.....	294 40
Filling counterweight joints with asphalt.....	675 00
Track diversion.....	51,478 55
	<u>\$117,955 44</u>

Stevens Street Subway:

Excavation, 5,810 cubic yards at \$1.50.....	\$ 8,715 00
Excavation, 465 cubic yards at 63 cents.....	292 95
Portland cement concrete, 512.9 cubic yards at \$8.00.....	4,103 20
Masonry, 432.2 cubic yards at \$11.50.....	4,970 30
Constructing sewer, iron railing on masonry wall, temporary crossing, paving Stevens Street and miscellaneous work account substructure, etc.....	6,262 23
Three girders and floor systems transferred from Pan Handle bridge site.....	3,821 30
Labor and extra material account superstructure.....	860 41
	<u>29,025 39</u>

Estimated cost of bridge and subway.....	\$146,980 83
Amount earned to January 1, 1901.....	146,980 83

Unpaid vouchers and balance required to complete (Carnegie Steel Co.) \$ 11,768 40

*The Atchison, Topeka and Santa Fe Railway Company's Bridge, Desplaines River, Section 8. Double Track. Twelve Plate Girder Spans, Each 60 Feet Long. Weight of Iron and Steel in Structure, 1,117,765 Pounds. Penn Bridge Company, Contractor for Superstructure.*

This bridge was completed in the year 1898 at a total proportionate cost to the District of \$23,275.07. The schedule for all the work done appears in the Annual Report for 1899 (see page 61 of the appendix to the Proceedings for December 26, 1900).

*Lemont Road (Stevens Street) Bridge, Main Channel, Section 8. Single Roadway, 20 Feet Wide. One Sidewalk, 4 Feet Wide. Length, 306 Feet 1 1/4 Inches. Weight of Iron and Steel in Structure, 339,705*

*Pounds. Counterweight, 207,300 Pounds. Sackley & Peterson, Contractors for Substructure. O. L. Strobel, Contractor for Superstructure.*

On February 7th (pages 6279-81) the Board released the bond on the contract for the superstructure of this bridge.

A small amount of work was done by the contractors for the substructure in connection with the approaches to this bridge. The work was completed in the month of February, and the items vouchered during the year on this account are as follows:

Excavation, west approach, 2,401 cubic yards, at \$1.12 1/2.....	\$2,701.13
Macadam road surfacing, 667 cubic yards, at \$1.90.....	1,267.30
Total .....	<u>\$3,968.43</u>

As was stated under the head of "The Atchison, Topeka and Santa Fe Railway Company's Bridge, Main Channel, Section 8, Etc.," Sackley & Peterson presented certain claims to the Board, amounting to \$3,377.17; that they were referred to the Committee on Engineering; that the Chief Engineer reported on same and allowed \$1,046.00 of the amount asked for; and that the Board authorized the payment of same. Of the total amount awarded, the following items were on account of this bridge:

Hire of watchman during the period of the injunction of the Lemont Highway Commissioners.....	\$135.00
Salary of foreman during the period of the injunction of the Lemont Highway Commissioners...	225.00
Hire of cars during the period of injunction of the Lemont Highway Commissioners.....	186.00
Total .....	<u>\$546.00</u>

On November 14th (pages 6850-1) the Board ordered the release of the bond on the contract for the substructure of this bridge.

In accordance with the terms of the resolution of the Board of Highway Commissioners of the Town of Lemont, adopted on May 18th, 1900, and accepted by the Sanitary District on May 23d, 1900 (see pages 6576-7 of the Proceedings), it was stipulated that the District shall construct, on the east side of this bridge, a sidewalk four feet in width. On August 9th a proposition was received from C. L. Strobel to do this work for \$769.00. On August 23d (page 426 of his letter book) the Engineer of Bridges and Bridge Construction, W. M. Hughes, accepted the proposition and ordered that the work be done. Work was soon begun and completed by the end of November. Two vouchers were issued in settlement of this work—one for \$489.00 for the material entering into the walk (file No. 4368), and one for \$280.00 for the erection of same (file No. 4386).

The condition of work on December 31st was as follows:

Excavation, 1,852 cubic yards at \$1.00.....	\$ 1,852 00
Portland cement concrete, 154.44 cubic yards at \$5.00.....	772 20
Masonry, 278.92 cubic yards at \$11.85.....	3,305 20
Excavation of west approach, 2,951 cubic yards at \$1.12½.....	3,319 88
Excavation, change in road, 356 cubic yards at 22 cents.....	78 32
Excavation in front of north abutment, 1,405 cubic yards at 40 cents.....	562 00
Macadam road surfacing, 867 cubic yards at \$1.90.....	1,647 30
Cutting down road back of north abutment.....	39 10
Top dressing for new road west of channel.....	112 12
Erecting foot walk on east side of bridge.....	769 00
Moving fence on west side of channel.....	3 45
Pumping out quarry account saved dimension stone.....	60 00
Adjustment of claims:	
Hire of watchmen account injunction.....	\$135 00
Salary of foreman account injunction.....	225 00
Hire of cars account injunction.....	186 00
	<u>546 00</u>
Material left over, 12 cubic yards sand at \$1.25.....	15 00
Lump sum price for superstructure.....	14,990 00
	<u>\$28,071 57</u>
Total cost of bridge.....	28,071 57
Amount earned to January 1, 1901.....	<u>28,071 57</u>
Unpaid vouchers and balance required to complete.....	<u>280 00</u>

*Lemont Road Bridge, Desplaines River, Section 8. Single Roadway, 18 Feet Wide. Ten Wooden Spans, Each 60 Feet in Length. E. D. Smith & Co., Contractors.*

This bridge was completed in the year 1894 at a total cost of \$22,329.89 (file No. 84).

*Western Stone Company's Bridge, Desplaines River. Section 10. Single Track Trestle of 32 Bents, Each 16 Feet in Length. E. D. Smith & Co., Contractors.*

This bridge was completed in the year 1894 at a total cost of \$15,983.63 (file No. 107).

*Romeo Road Bridge, Main Channel. Section 12. Single Roadway, 20 Feet Wide. Length, 306 Feet 1 1/4 Inches. Weight of Iron and Steel in Structure, 339,505 Pounds. Counterweight, 208,100 Pounds. Heldmaier & Neu, Contractors for Substructure. O. L. Strobel, Contractor for Superstructure.*

The substructure and the superstructure for this bridge were completed in the year 1890.

On February 7th (pages 6279-80) the Board released the bond on the contract for the superstructure.

On March 28th (page 6382) a communication from the City Trust, Safe Deposit and Surety Company, of Philadelphia, requesting a release of the bond on the contract for the substructure, was referred to the Committee on Finance, and, on May 23d (pages 6569-70), the Board released the said bond.

One voucher, amounting to \$55.25, was issued to Heldmaier & Neu during the year.

This was for lumber delivered in July, 1899, and used in building a temporary driveway (file No. 3655). In addition to this item Heldmaier & Neu moved lamp posts, drilled holes for bridge rollers and took down slopes, the total cost of which was \$10.47. This amount was paid by the Chief Engineer and vouchered to him on his expense voucher (file No. 3969).

Three vouchers, aggregating \$411.91, were issued to the A. T. & S. F. Ry. Co. during the year for labor and freight in connection with its change of track at Romeo (file No. 3812).

On May 31st (pages 6596-7) a communication from the village of Romeoville, in reference to the completion of the Romeo Road and the removal of a scale house situated thereon, was referred to the Committee on Engineering, and, on June 13th (page 6610), the Board authorized the Chief Engineer to have the work done. No work was done in this connection during the year.

The condition of work on December 31st was as follows:

Excavation, 3,624 cubic yards at 75 cents.....	\$ 2,718 00
Portland cement concrete, 357.7 cubic yards at \$8.50.....	3,040 45
Masonry, 826.9 cubic yards at \$9.25.....	7,648 83
Recutting abutment stone.....	553 18
Extra work account roads, driveways and crossings.....	509 71
Extra work account saved dimension stone.....	60 00
Removing temporary structure to allow permanent work.....	8 10
Changes in Santa Fe side track.....	411 91
Lum sum price for superstructure.....	14,990 00
Extra steel, 11,454 pounds at 3 1/2 cents.....	400 89
Extra cast iron, 1,906 pounds at 3 cents.....	57 18
Extra lumber in superstructure, 5,825 feet B. M. at \$28.00.....	163 10
Extra drilling.....	22 83

Total cost of bridge.....	\$30,584 18
Amount earned and paid to January 1, 1901.....	\$30,584 18

*Bridge Over Bear Trap Dam, Controlling Works. One Through Pin Span, 176 Feet Centers of Bearings and One Pony Rivetted Span, 80 Feet, Centers of Bearings. Width, 14 Feet, Centers of Trusses. Total Length, 264 Feet 9 Inches. Weight of Steel in Structure, 109,161 Pounds. Lafayette Bridge Company, Contractor for Superstructure.*

As a result of the advertisement, dated November 1, 1899, for proposals for a bridge over the Bear Trap Dam, the Board, on January 3, 1900 (pages 6227-8), received 12 bids for this work, ranging from \$5,-

075.00 to \$9,394.00. The lowest bid received was from the Lafayette Bridge Company, and the Board, on the same date, authorized its President and Clerk to execute a contract with this company. On January 10th (page 6235) the Board approved the bond on the contract. The executed contract, which bears date of January 6th, 1900, appears on pages 6243-50 of the Proceedings.

The work of erecting this structure was begun in the month of July and completed in August. Two vouchers were issued to this company during the year—one for \$3,-

045.00, which was 60 per cent of the contract price, for having delivered all of the material at the site of erection (file No. 4126); and the final, for \$2,030.00, which was the balance due upon the completion of the contract (file No. 4201). The final voucher was presented to the Board on September 5th (pages 6728-9) and passed

on the same date. The final certificate of the Chief Engineer appears on page 6729.

During the months of May and June the construction of the abutments and piers for this bridge was carried on by Sanitary District force account. The items covering the cost of this work are shown in the following schedule:

<i>File No.</i>	<i>Firm and Nature of Voucher.</i>	<i>Amount.</i>
4027	Fred Boehme, sand.....	\$ 35 38
4068	Thomas Moulding Co., cement.....	421 60
4069	Daniel Sullivan, unloading cement and hauling stone, sand and supplies....	106 00
4026	Jos. F. Haas, Clerk, pay rolls.....	431 40
4096	Jos. F. Haas, Clerk, pay rolls.....	101 08
4064	Isham Randolph, crushed stone and freight on material.....	19 42
Total.....		<u>\$1,114 88</u>

On July 18 (pages 6680-1) the Board authorized the Chief Engineer to build the approaches to this bridge and to have the work done on Sanitary District force account. This work was begun in the month of August and completed in November. The items covering the cost of same are given in the following schedule:

<i>File No.</i>	<i>Firm and Nature of Voucher.</i>	<i>Amount.</i>
4234	Wilcox Brothers, lumber.....	\$ 251 09
4233	Barrett Hardware Co., supplies.....	11 57
4373	Barrett Hardware Co., iron railing, supplies, etc.....	526 42
4157	A. R. Porter, Clerk.....	156 59
4235	A. R. Porter, Clerk.....	403 42
4322	A. R. Porter, Clerk.....	160 47
4387	A. R. Porter, Clerk.....	206 30
4307	Isham Randolph, paid for lumber.....	9 76
Total.....		<u>\$1,734 62</u>

The condition of work on December 31st was as follows:

Cost of abutments and piers.....	\$1,114 88
Cost of approaches.....	1,734 62
Lump sum price for superstructure.....	5,075 00
Total cost of bridge.....	<u>\$7,924 50</u>
Amount earned and paid to January 1, 1901.....	<u>7,924 50</u>

*Lockport Road Bridge, Desplaines River Channel, Section 16. Single Roadway, 18 Feet Wide. Three 200-Foot Through Spans. Weight of Metal in Structure, 332,573 Pounds. Griffiths & McDermott, Contractors for Substructure. Wisconsin Bridge and Iron Company, Contractor for Superstructure.*

This bridge and work appertaining thereto was entirely finished in the year 1899, but, owing to the final notes not having been completely checked in that year, certain items were not vouchered until 1900. These items are as follows:

Lockport Road macadam, broken stone, 12 cubic yards at \$1.00.....	\$ 12 00
Lockport Road macadam, gravel, 176 cubic yards at 80 cents.....	140 80
Total.....	<u>\$152 80</u>

These items appear on the final voucher for Hayes Brothers and were ordered paid on April 11th (File No. 3877).

The condition of work on December 31st was as follows:

Excavation, 526 cubic yards at \$1.00.....	\$ 526 00
Portland cement concrete, 449.45 cubic yards at \$0.95.....	3,123 68
Broken stone for macadam, 1,225 cubic yards at \$1.00.....	1,225 00
Gravel for macadam, 609 cubic yards at 80 cents.....	487 20
Lump sum price for superstructure.....	10,954 00
Compensation for closing Lockport Road in excess of time agreed upon.....	780 00

Total cost of bridge.....	\$17,095 88
Amount earned and paid to January 1, 1901.....	17,095 88

*Wire Mills Road Bridge, Desplaines River Channel, Section 16. Single Roadway, 18 Feet Wide. Two 200-Foot and One 100-Foot Through Spans. Weight of Metal in Structure, 259,369 Pounds. Hayes Brothers, Contractors for Substructure. Wisconsin Bridge and Iron Company, Contractor for Superstructure.*

On January 31st (page 6272) the Board released the bond on the contract for the substructure of this bridge.

This bridge, including the work of macadamizing the Wire Mills Road, was completed in the year 1899, but, owing to the final notes for the macadam work not having been completely checked in that year, a part of the said work was not vouchered until 1900. The items are as follows:

Wire Mills Road macadam, broken stone, 67 cubic yards at \$1.35.....	\$ 90 45
Wire Mills Road macadam, gravel, 21 cubic yards at \$1.35.....	28 35
Total.....	\$118 80

A small amount of work was done in the month of January, 1900, and consisted of riprapping the west approach to the Wire Mills Road bridge. This work was done by Hayes Brothers on force account and amounted to \$89.72 (File No. 3820).

The condition of work on December 31st was as follows:

Excavation, 508 cubic yards at 50 cents.....	\$ 254 00
Portland cement concrete, 566.57 cubic yards at \$7.50.....	4,249 28
Excavation of old masonry, 95 cubic yards at 40 cents.....	38 00
Broken stone for macadam, 2,517 cubic yards at \$1.35.....	3,397 95
Gravel for macadam, 991 cubic yards at \$1.35.....	1,337 85
Construction of embankment on road, 3,600 cubic yards at 25 cents.....	900 00
Stopping leaks in embankment and revetting slopes.....	153 23
Riprapping west approach.....	89 72
Raising bridge.....	220 00
Lump sum price for superstructure.....	8,945 00
Placing timber sills on piers and abutments of old span.....	71 25
Compensation for closing Wire Mills road in excess of time agreed upon.....	1,250 00

Total cost of bridge.....	\$20,906 28
Amount earned and paid to January 1, 1901.....	20,906 28

*Elgin, Joliet and Eastern Railway Company's Bridge, Desplaines River Channel, Between Sections 16 and 17. Four Single Track-Deck Spans, Each 125 Feet 1½ Inches Centers of Bearings, and One Single Track Through Span, 147 Feet Center of Bearings. Total length of bridge, 660 Feet ¾ Inches. Weight of Metal in Structure, 1,114,735 Pounds. Benzette*

*Williams, Contractor for Substructure. Julius G. Wagner, Contractor for Superstructure.*

This bridge was entirely completed in the year 1897 at a total cost of \$41,984.62. The schedule for all the work done appears in the Annual Report for 1897 (see page 4642-3 of the Proceedings for March 9th, 1898).

*Tow Path Bridge, Desplaines River Channel, Section 17. Single Roadway, 12 Feet Wide. One Tow Path, 6 Feet Wide. Three Skew Spans, Each 200 Feet  $\frac{3}{4}$  Inch. Total Length, 624 Feet 3 Inches. Weight of Metal in Structure, 444,765 Pounds. Heldmaier & Neu, Contractors for Substructure. The Joliet Bridge and Iron Company, Contractor for Superstructure.*

Although the substructure work was practically completed in 1899, the final notes for same were not checked until 1900. An item of 76.4 cubic yards of concrete, representing an earning of \$676.14, was vouchered during that period.

An extra voucher amounting to \$1,431.87 was issued during the year to the substructure contractors (file No. 3915). This voucher contained two items, as follows:

Extra cost of Portland cement used instead of natural cement, as originally contemplated.....	\$1,393.23
Iron used in substructure.....	38.64
<b>Total .....</b>	<b>\$1,431.87</b>

Two small bills of these contractors were paid by check by the Chief Engineer for work done as follows: Excavation for rip-rap wall for abutment No. 1, amounting to \$13.30, and teaming of tools, amounting to \$2.30. These amounts were returned to the Chief Engineer on his expense vouchers (file Nos. 3969 and 4064).

The superstructure contractor began operations in the early part of the year and practically completed the work at the end of August. Two vouchers were issued on this account—one for \$12,585.00, which was 60 per cent of the contract price for delivering all of the material at the site of erection, and the other for \$8,300.00, being the balance due at the time the contract was completed (file Nos. 4029 and 4203). The final voucher was presented and passed by the Board on September 5th (pages 6726-7). The final certificate of the Chief Engineer appears on page 6727 of the Proceedings.

A summary of the earnings for the year on account of this bridge is as follows:

Heldmaier & Neu.....	\$ 2,123 61
Joliet Bridge & Iron Company.....	20,975 00
<b>Total.....</b>	<b>\$23,098 61</b>

The condition of work on December 31st was as follows:

Excavation (force account).....	\$ 1,524 07
Concrete, 878.4 cubic yards at \$8.85.....	7,773 84
Extra material, etc., account abutments:	
Extra cost of cement.....	\$1,393 23
Iron for piers.....	38 64
Teaming.....	2 30
	<b>1,434 17</b>
Lump sum price for superstructure.....	20,975 00
<b>Total cost of bridge.....</b>	<b>\$31,707 08</b>
Amount earned to January 1, 1901.....	31,707 08
Reserved percentage and balance required to complete.....	971 73

*Cass Street Bridge, Desplaines River Channel, Section 18. Single Roadway, 30 Feet Wide. Two 7-Foot Sidewalks. One 213 Feet 9 Inches Through Span and One 89 Feet 6 Inches Through Plate Girder. Weight of Metal in Structure, 835,424 Pounds. The J. G. Wagner Company, Contractor for Substructure and Superstructure.*

Work on the substructure of this bridge was carried on during the early part of the year and was completed in the month of May. The items vouchered to the J. G. Wagner Company on regular estimates during the year are as follows:

Excavation, earth, 588 cubic yards at 60c.....	\$ 352 80
Excavation, old masonry, 391 cubic yards at \$2.00.....	782 00
Excavation, solid rock, 119 cubic yards at \$4.00.....	476 00
Sheet piling and bracing, 3,080 feet B. M. at \$50.00.....	154 00
Portland cement concrete, 268.8 cubic yards at \$5.75.....	1,545 60

Masonry, Bedford coping, 31.3 cubic yards at \$13.00.....	406 90
Overhaul (verbal order), 551 cubic yards at 20c.....	110 20
<b>Total .....</b>	<b>\$3,827 50</b>

On June 29th (page 6634) the final voucher for the substructure work, amounting to \$1,494.84, was presented to the Board and referred to the Committee on Engineering. On July 11th (pages 6658-9) the Board ordered the said voucher paid (File No. 4141). The final certificate of the Chief Engineer appears on page 6659.

In addition to the vouchers covering the regular work, two extra vouchers were issued to this Company during the year as follows:

<i>File No.</i>	<i>Nature of Voucher.</i>	<i>Amount.</i>
3972	Building sewer, repairing false work, etc.....	\$164 40
4220	Reimbursement for cement sacks and freight on cement.....	77 99
<b>Total .....</b>		<b>\$242 39</b>

As was stated under the head of "Section 18" of this report (see paragraph in reference to the Jefferson Street temporary bridge), the Chief Engineer, on June 29 (page 6634), transmitted a communication to the Board in reference to certain extra charges of The J. G. Wagner Company in connection with the work on its bridge contracts at Joliet and to certain countercharges of the District for payments made to outside parties for work done on this Company's account. The amount of the claims on account of the Cass Street bridge were \$2,863.09 and the countercharges, \$1,610.12. This communication was referred to the Committee on Engineering and, on July 11 (pages 6658-60), the Board authorized the payment of the said claims when The J. G. Wagner Company had deposited with the District the amount of the countercharges. This deposit was made and a final settlement effected (File No. 4102).

Shortly after this settlement was made it was found that this Company was entitled to a credit for \$140.69, which was not given at the time that the differences were adjusted. On September 12th (page 6734), this matter was brought to the attention of the Board by the Chief Engineer, and the amount was ordered paid. Of this amount \$77.99 was charged to the Cass Street bridge and \$62.70 to Section 18 proper (File No. 4220).

During the progress of work on this bridge sundry labor and material was furnished by outside parties, a schedule of which is shown as follows:

<i>File No.</i>	<i>Name and Nature of Voucher.</i>	<i>Amount.</i>
3635	Gahan & Byrne, labor and material, account sundries.....	\$ 201 10
3636	Gahan & Byrne, labor and material, account sundries.....	191 30
3711	Gahan & Byrne, supporting and protecting water and gas pipe.....	278 39
3755	Gahan & Byrne, excavation, account Wagner contract.....	1,542 02
4003	Gahan & Byrne, building sidewalk retaining wall.....	82 50
4116	Gahan & Byrne, grading approaches to bridge.....	251 05
3870	Geo. M. Campbell, crushed stone.....	150 00
4104	Geo. M. Campbell, crushed stone.....	41 18
3673	James B. Clow & Sons, iron pipe.....	669 32
3708	Economy Light & Power Co., furnishing light.....	20 00
3783	Henry Rub, removing building from west abutment.....	74 25
3784	Alfred Wenberg, use of hoisting engine.....	25 00
3883	Chicago Telephone Co., making changes in telephone line.....	943 63
4270	Chicago Telephone Co., making changes in telephone line.....	31 63
4107	Heldmaier & Neu, cement and sand furnished.....	493 38
4130	E. J. Wetterstrom, crushed stone for approaches.....	29 00
4131	John T. Kelly, labor and material, account water pipe.....	441 96
3722	Isham Randolph, paid for pipe and salt.....	2 80
3807	Isham Randolph, paid for salt.....	11 25
3969	Isham Randolph, paid for lumber.....	16 14
4064	Isham Randolph, paid for replacing water closet.....	25 00
4173	Isham Randolph, paid for use of roller and sprinkler.....	12 00
<b>Total .....</b>		<b>\$5,532 90</b>

Work on the superstructure was begun in the month of March and finished in June. The bridge was opened for traffic on June 11. Three vouchers were issued to the contractor during the year, as follows:

<i>File No.</i>	<i>Passed by Board.</i>	<i>Nature of Voucher.</i>	<i>Amount.</i>
8653	January 26.....	Steel delivered at shops.....	\$12,500 00
8885	April 11.....	Balance of 60 per cent.....	5,485 60
4151	July 18.....	Balance due, including extra price for removing end posts .....	12,640 40
<b>Total .....</b>			<b>\$30,626 00</b>

The final voucher was presented to the Board on July 11th (page 6649) and referred to the Committee on Engineering. On July 18 (pages 6683-4), the said voucher was passed by the Board. The final certificate of the Chief Engineer appears on page 6684.

A summary of the earnings for the year is as follows:

The J. G. Wagner Company.....	\$35,948 86
Sundry firms .....	5,532 90
<b>Total .....</b>	<b>\$41,481 76</b>

The condition of work on December 31st was as follows:

Excavation, solid rock, 224 cubic yards at \$4.00.....	\$ 896 00
Excavation, earth, 973 cubic yards at 60c.....	583 80
Excavation, old masonry, 761 cubic yards at \$2.00.....	1,522 00
Extra cost excavation.....	843 03
Sheet piling and bracing, 3,080 feet B. M. at \$50.00.....	154 00
Portland cement concrete, 494.8 cubic yards at \$5.75.....	2,845 10
Extra cost concrete.....	616 80
Masonry, Bedford coping, 31.3 cubic yards at \$13.00.....	406 90
Overhaul, 551 cubic yards at 20c.....	110 20
Work account water and gas pipes.....	3,974 04
Removal of old superstructure.....	500 00
Grading approaches .....	333 23
Riprapping old masonry.....	230 25
Lump sum price for superstructure.....	29,976 00
Removing end post.....	150 00
Miscellaneous (for details see files of Engineering Department).....	2,403 75
<b>Total cost of bridge.....</b>	<b>\$45,545 10</b>
<b>Amount earned and paid to January 1, 1901.....</b>	<b>\$45,545 10</b>

*Jefferson Street Bridge, Desplaines River Channel, Section 18. Two Spans, Each 113 Feet 10 3/4 Inches Center to Center of End Pins. Single Roadway, 57 Feet 6 Inches Wide. Two 11-Foot Sidewalks. Weight of Metal in Structure, 651,070 Pounds. The J. G. Wagner Company, Contractor for Substructure and Superstructure.*

Work on the substructure of this bridge was completed in the month of April and the items vouchered during the year to the contractor for same are as follows:

Excavation, earth, 184 cubic yards at 60c.....	\$ 110 40
Excavation, solid rock, 147 cubic yards at \$4.00.....	588 00
Overhaul, 1,813 cubic yards at 20c.....	362 60
Sheet piling and bracing, 4,064 feet B. M. at \$50.00.....	203 20
Sheet piling and bracing, 3,000 feet B. M. at \$22.00 (undercharge).....	66 00
Portland cement concrete, 656.9 cubic yards at \$5.75.....	3,777 18
Masonry, Bedford coping, 89.3 cubic yards at \$13.00.....	1,160 90
<b>\$6,268 28</b>	



*Less overestimates in 1899—*

Excavation, clay and broken stone, 101 cubic yards at \$1.25.....	\$ 126 25
Excavation, old masonry, 1,127 cubic yards at \$2.00.....	2,254 00
	<u>2,380 25</u>
Total .....	<u>\$3,888 03</u>

On June 29th (page 6634), the final voucher for the substructure work, amounting to \$2,843.16, was presented to the Board and referred to the Committee on Engineering. On July 11th (pages 6658-9), the Board ordered the said voucher paid (File No. 4142). The final certificate of the Chief Engineer appears on page 6659.

In addition to the work covered in the regular vouchers the following items were vouchered to The J. G. Wagner Company on account of this bridge:

<i>File No.</i>	<i>Nature of Voucher.</i>	<i>Amount.</i>
3972	Removing driftwood and wreckage.....	\$ 81 43
	Repairs to Bannon's roof account blasting.....	16 35
	Repairs to false work.....	100 00
		<u>\$197 78</u>
3669	Repairs to Wood building.....	\$ 17 87
	Placing trestle under Gahan & Byrne's track in front of east abutment .....	54 51
	Drilling in front of west abutment.....	36 80
		<u>109 18</u>
Total .....		<u>\$306 96</u>

As was stated under the head of "Section 18" and again under the head of "Cass Street Bridge, etc.," in this report, The J. G. Wagner Company submitted to the District a statement of extra charges for work done in connection with the work at Joliet and that the Chief Engineer reported to the Board on certain countercharges of the District for payments made to outside parties for work done on this Company's account. The amount of the claims for work done on the Jefferson Street bridge was \$2,117.52 and the countercharges, \$1,641.44. The Board authorized the payment of the claims and the countercharges were paid by the contractor (File No. 4102).

On June 6 (page 6602), the Board ordered that the pavement of the approaches to this bridge be repaired. An arrangement was made with the Bermudez Asphalt Paving Company to do the work at \$3.00 per square yard. The work was done in the month of June at a total cost to the District of \$813.00 (File No. 4105).

In addition to the work mentioned above, sundry labor and material was furnished during the year by parties other than the regular contractor and the vouchers issued to them is shown in the following schedule:

<i>File No.</i>	<i>Firm and Nature of Voucher.</i>	<i>Amount.</i>
3754	Gahan & Byrne, overhaul, account Wagner contract.....	\$ 298 20
3882	Joliet Bridge & Iron Co., metal bars and plates.....	573 26
3888	Economy Light & Power Co., furnishing light.....	30 00
3916	Economy Light & Power Co., transferring wires.....	23 60
4004	Willcox Bros., lumber.....	58 78
4032	Geo. M. Campbell, sand.....	88 65
4104	Geo. M. Campbell, crushed stone.....	3 45
4071	Joliet Railroad Co., constructing track and electric line over bridge.....	420 14
4169	Werden Buck, brick for paving between car tracks.....	17 54
4275	Isham Randolph, paid for cement.....	7 50
Total .....		<u>\$2,334 12</u>

Work on the superstructure was begun in the month of January and completed in May. Three vouchers were issued to the contractor during the year, as follows:

File No.	Passed by Board.	Nature of Voucher.	Amount.
3654	January 26.....	Steel delivered at shops.....	\$12,500 00
3886	April 11.....	Balance of 60 per cent.....	1,396 00
4023	May 31.....	Balance due on contract price.....	9,264 00
Total .....			<u>\$23,160 00</u>

The final voucher was presented to the Board on May 31st (pages 6586-7) and ordered paid on the same date. The final certificate of the Chief Engineer appears on page 6587.

A summary of the earnings for the year is as follows:

The J. G. Wagner Co.....	\$27,831 07
Sundry firms.....	2,334 12
Total.....	<u>\$30,165 19</u>

The condition of work on December 31st was as follows:

Excavation, earth, 1,784 cubic yards at 60c.....	\$ 1,070 40
Excavation, clay and broken stone, 1,299 cubic yards at \$1.25.....	1,623 75
Excavation, old masonry, 2,423 cubic yards at \$2.00.....	4,846 00
Excavation, solid rock, 747 cubic yards at \$4.00.....	2,988 00
Sheet piling and bracing, 7,064 feet B. M. at \$50.00.....	353 20
Portland cement concrete, 1,256.9 cubic yards at \$5.75.....	7,227 18
Masonry, Bedford coping, 89.3 cubic yards at \$13.00.....	1,160 90
Labor and material, account water and gas pipes.....	699 57
Labor and material, account street car tracks.....	1,018 44
Labor and material, account approaches to bridge.....	1,091 30
Lump sum price for superstructure.....	23,160 00
Miscellaneous (for details see files of Engineering Department).....	3,323 58

Total cost of bridge.....	<u>\$48,562 32</u>
Amount earned and paid to January 1, 1901.....	<u>\$48,562 32</u>

*Chicago, Rock Island and Pacific Railroad Company's Bridge, Desplaines River Channel, Section 18. Two Double Track Deck Plate Girder Spans. Total Approximate Length, 159 Feet. Weight of Metal in Structure, 518,718 Pounds. Gahan & Byrne, Contractors for Substructure. Chicago Bridge and Iron Company, Contractor for Superstructure.*

The excavation for the foundation for this bridge was completed in the latter part of the year 1899, as was also the concrete work. Owing to the fact that the foundation excavation was not carried down to grade, it became necessary to widen the channel at this point in order to secure the required water cross-section. This work of widening was carried on and completed in the spring of 1900 by Gahan & Byrne under the same order of the Chief Engineer that the foundation work was carried on. The following items were vouchered to these contractors under the order mentioned:

Excavation, 5,275 cubic yards at \$2.50 .....	\$13,187.50
Less 89.8 cubic yards concrete, overestimated in 1899, at \$8.00.	718.40
Total .....	<u>\$12,469.10</u>

The final voucher for this work is included in the final of Gahan & Byrne for Section 18 and was passed by the Board on May 16th (pages 6459-64).

Work on the superstructure for this bridge was begun in the month of April and finished in May. Two vouchers were issued on this account during the year—one for \$8,832.00, which was 60 per cent. of the total contract price (file No. 3940), and the final, amounting to \$5,931.64, which represented the balance due upon the completion of the contract (file No. 4022). The final certificate of the Chief Engineer appears on page 6590.

On September 19th (pages 6743-4), the

Board released the surety bond on the contract for the superstructure and ordered that the Chicago Bridge and Iron Company execute a new bond in the sum of \$2,000. in lieu thereof.

Acting under its agreement with the San-

itary District, dated October 1, 1897, the Chicago, Rock Island and Pacific Railway Company carried on operations during the early part of the year, and a record of the work done is given in the following schedule:

<i>File No.</i>	<i>Nature of Voucher.</i>	<i>-Amount.</i>
3674	Inspecting and lining bridge.....	\$121 60
4207	Wages of flagman.....	49 50
4224	Sundry labor and material.....	185 09
Total .....		<u>\$357 09</u>

The condition of work on December 31st was as follows:

Excavation, solid rock, 6,575 cubic yards at \$2.50.....	\$16,437 50
Concrete, 980.2 cubic yards at \$8.00.....	7,841 60
Work done by C., R. I. & P. Ry. Co.....	357 09
Lump sum price for superstructure.....	<u>14,763 64</u>
Total cost of bridge.....	\$30,399 83
Amount earned and paid to January 1, 1901.....	<u>39,399 83</u>

#### ILLINOIS AND MICHIGAN CANAL IMPROVEMENT AT BRIDGEPORT.

In its agreement with the Canal Commissioners, dated December 21, 1899 (see pages 6199-6201 of Proceedings), the Sanitary District agreed to lower the lock at the junction of the I. & M. Canal and the South Branch of the Chicago River "so as to maintain a depth of 6½ feet of water over the mitre sills of said lock."

On January 29th, the Committee on Engineering authorized the construction of the cofferdams necessary to the reconstruction of this lock, and on February 21st the same Committee authorized the Chief Engineer to reconstruct the lock. The work involved in carrying out these orders was as follows: Construction of coffer-dams and pumping out of same; taking out old lock and excavating for new one; constructing and filling new cribs on each side of lock; building lock keeper's house; dredging from the entrance of the I. & M. Canal to the lock; and removing, repairing and replacing the Ashland Avenue bridge. The work was begun in the month of February and entirely completed in June. The work of constructing the lock proper was done on Sanitary District force account, the men working the entire twenty-four hours of each day in eight-hour shifts.

The written orders covering the entire work is shown in the following schedule:

<i>Date of Order.</i>	<i>Firm and Nature of Order.</i>	<i>Price Stipulated.</i>	<i>Page of Letter Book.</i>
Feb. 5.	Green's Dredging Co., hauling of lumber from Robey Street .....	\$ 408 00	Chief Engr. 474
Feb. 5.	Green's Dredging Co., building coffer-dam at east end of lock .....	460 00	Chief Engr. 477
Feb. 5.	Green's Dredging Co., building coffer-dam at west end of lock .....	495 00	Chief Engr. 478
Feb. 5.	Green's Dredging Co., pumping out coffer-dams.....	397 00	Chief Engr. 479
Feb. 5.	Green's Dredging Co., removal of east coffer-dam....	375 00	Chief Engr. 475
Feb. 5.	Green's Dredging Co., removal of west coffer-dam....	400 00	Chief Engr. 476
Mar. 12.	The Marsh & Bingham Co., lumber for lock....per M	26 00	Record Clk. 401
Mar. 12.	Francis Beldier & Co., lumber for lock...per M \$16 and	24 00	Record Clk. 402
Apr. 5.	Green's Dredging Co., dredging.....per cubic yard	35	Chief Engr. 120
Apr. 5.	Green's Dredging Co., removing and replacing Ashland Avenue bridge.....	2,500 00	Chief Engr. 120
Apr. 6.	Francis Beldier & Co., lumber.....per M from \$14 to	26 00	Record Clk. 463
Apr. 6.	Illinois Nail Co., nails.....per hundred pounds	2 75	Record Clk. 464
May 28.	L. Gowan, painting lock house, etc.....	57 00	Chief Engr. 250

The total cost of the work and the condition of same on December 31st was as follows:

Coffer-dams .....	\$ 3,150 00
Material and supplies, account lock .....	17,771 61
Purchase and rental of tools and machinery, account lock .....	1,762 66
Labor, account lock .....	43,871 86
Removing, replacing and repairing Ashland Avenue bridge .....	3,302 75
Dredging I. & M. Canal .....	7,157 10
Total cost of lock, etc. ....	\$77,016 08
Amount vouchered to January 1, 1901 .....	76,809 17
Amount unvouchered and balance required to complete .....	\$ 206 91

## RAILROADS.

*Pennsylvania Company.*

In addition to the payments made by the Sanitary District for the rent of its land which the Chicago River by-pass runs through, this company had bills vouchered on construction account to the amount of \$982.00, for services in connection with the by-pass work.

*Chicago and Alton Railroad Company.*

In addition to the payments made to this company for the use of its land, a total of \$375.00 was vouchered by the District on construction account, for services rendered in connection with the by-pass work on the Chicago River.

*Chicago Terminal Transfer Railroad Company.*

Acting under authority of its agreement with the Sanitary District, dated December 6, 1898 (pages 5359-61), this company continued operations during the year in connection with its crossing of the Chicago River near Taylor Street.

In accordance with its agreement with the District, dated November 14, 1895 (pages 2920-23), this company continued operations at the Pan Handle crossing of the Main Channel, on contract Section "O," in connection with both its temporary and permanent structures.

Although the entire work in connection with this company's crossing of the Main Channel on contract Section "E" was completed in the year 1899, several items were left unvouchered at that time and were issued in 1900.

The last work done by this company in connection with its temporary and permanent crossings of the Desplaines River Diversion on Section "E" was in the month of January.

In accordance with Sections 8 and 9 of

Article I of its contract with the Sanitary District, dated September 3, 1897 (pages 5381-5), this company was entitled to a sum of money as compensation for the ordinary maintenance and repairs of the two bridges crossing the Main Channel and River Diversion on contract Section "E." The computations determining the amounts were made by the Chief Engineers of the C. T. T. R. R. Co. and the Sanitary District. A report of the amounts determined on was brought before the Board on November 28th (pages 6866-7), and was referred to the Committee on Engineering. No final disposition of same was made during the year.

The amounts vouchered to this company during the year on construction account are as follows:

Bridge, Chicago River .....	\$ 8,219 94
Temporary trestles, Section "O" ..	4,915 85
Permanent bridge, Section "O" ..	659 27
Permanent bridge, Main Channel, Section "E" .....	232 94
Temporary trestle, Desplaines River, Section "E" .....	357 93
Permanent bridge, Desplaines River, Section "E" .....	8,777 56
Total .....	\$23,162 99

*Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company.*

In accordance with its contract with this District, dated August 21, 1895 (pages 2783-6), and with its supplementary agreement shown in the Proceedings of the Board for April 16, 1897 (pages 3966-7), this Company continued to do work in connection with its temporary crossing on contract Section "O," and vouchers amounting to \$4,038.87 were issued to it during the year.

*The Chicago Junction Railway Company (Formerly Union Stock Yards and Transit Company).*

On October 31st (page 6827), the Chief

Engineer transmitted a communication to the Board in reference to a bill from this Company amounting to \$840.59. The Chief Engineer questioned the propriety of a portion of the said bill and stated that, since the District is entitled to certain credits on account of the temporary work when the Eight-track Bridge is completed, this Company offered to settle the matter by a mutual cancellation of obligations. The Chief Engineer recommended that this be done and asked for instructions in the premises. The matter was referred to the Committee on Engineering and was not reported on during the year.

In accordance with its contract with the Sanitary District, dated November 13, 1895 (pages 2920-5), this Company continued operations at the Pan Handle crossing on contract Section "O." The amount vouchered on account of its temporary crossing was \$3,784.70 and on its permanent crossing, \$154.74.

*Illinois Central Railroad Company (Lessee of the Chicago, Madison and Northern Railroad Company).*

As was stated under the head of "Chicago, Madison and Northern Railroad Company's Bridge, Main Channel, Section N," this Company had finished its new alignment in the year 1899, but the final voucher for the work was not issued until the year 1900. The amount vouchered during the year was \$12,474.76.

*The Santa Fe System (The Atchison, Topeka and Santa Fe Railway Company. Chicago, Santa Fe and California Railway Company).*

On May 23rd (pages 6573-4), a certain form of agreement with The A., T. & S. F. Ry. Co. was transmitted to the Board by the Committee on Engineering, wherein the said Company gave the Sanitary District permission "to construct an embankment and two tracks and crossings therefor" over its right of way near the Pan Handle crossing "at a point west of the westerly line of Campbell Avenue." This permission was granted in order to divert the traffic of the P., C., C. & St. L. Ry Co. during the progress of the construction of the Eight-track Bridge. The executed agreement bears date of April 29, 1900, and appears in the Proceedings for August 29, 1900 (pages 6705-7).

As was stated under the head of "The A., T. & S. F. Ry. Company's Bridge, Main Channel, Section S, etc.," this Company practically completed its work of track deviation at Lemont in the year 1899 and

the work of placing girders across the Stevens Street Subway in the month of July, 1900.

On February 7th (pages 6281-2), the Board directed the Chief Engineer to arrange for the raising of the track of this Company at Joliet, in order to protect same from the high water occasioned by the increased flow in the Desplaines River Channel. This work was begun by the Santa Fe Company in the month of December, 1900, but was not finished during the year. In the month of February a small amount of work was done by this Company in connection with the repair of its tracks that were damaged by the ice gorge at that point.

In accordance with Sections 15, 16, 17 and 18, of Article I, of the contract with the Santa Fe system, the Sanitary District agreed to pay this company a sum of money as an indemnity for the cost of the ordinary repairs and maintenance of the five bridges crossing the Main Channel and the Desplaines River Diversion. During the year 1899, the three bridges crossing the Main Channel were capitalized and a final settlement made on the basis of fixed spans. In the year 1900, the Chief Engineers of the Railroad Company and the Sanitary District made the computations determining the amount of indemnity necessary to cover the two bridges crossing the Desplaines River Diversion. On July 18th (pages 6681-3), the Chief Engineer of the Sanitary District reported these results and the Board ordered the amounts paid (File No. 4196).

The joint certificate of the Chief Engineers appears on pages 6682-3.

The amounts vouchered to this Company during the year are as follows:

Account track deviation, Section 8.....	\$13,320 16
Account repair of track, Section 17.....	229 08
Account maintenance of bridge over Desplaines River Diversion, Section "F".....	6,215 80
Account maintenance of bridge over Desplaines River Diversion, Section 8.....	14,432 20
Total.....	\$34,197 24

*The Belt Railway Company of Chicago (The Belt Railway of Chicago and the Chicago and Western Indiana Railroad Company).*

Acting under its agreement with the

District dated January 4, 1899 (pages 5396-5401), this Company continued operations in connection with its new alignment, etc., at its crossing of the Main Channel, on contract Section "K." The amount vouchered during the year to this Company on account of this work was \$9,242.24, divided as follows: Temporary trestles, \$5,063.94; permanent bridge, \$4,178.30.

*Elgin, Joliet and Eastern Railway Company.*

On February 7th (pages 6281-2), the Board directed the Chief Engineer to arrange for the raising of the tracks of this Company at the Phoenix Horse Shoe Works at Joliet, in order to protect same from the high water due to the increased flow in the Desplaines River Channel. On May 14th (page 245 of his letter book), the Chief Engineer ordered the E. J. & E. Ry. Co. to do this work at a cost not to exceed \$500.00. The work was done in the month of October at a cost of \$500.00, and paid on December 12th (File No. 4348).

*Joliet Railway Company.*

Acting under its agreement with the Sanitary District dated January 16, 1899 (pages 5499-5501), this Company completed its track and electric line across the Jefferson Street bridge, in Joliet, in the month of March and the amount vouchered during the year on account of same was \$420.14 (File No. 4071).

*Chicago, Rock Island and Pacific Railway Company.*

In accordance with its agreement with the Sanitary District dated October 1, 1897 (pages 4428-9), this Company concluded operations at its crossing of the Desplaines River Channel, in Joliet, in the early part of the year.

In accordance with Section 2 of Article II of the contract between the C., R. I. & P. Ry. Co. and the Sanitary District, this Company was entitled to a sum of money as an indemnity "for the ordinary maintenance and repairs of the bridge structure designated in Article I, Section I of the contract, and for the general depreciation and wearing out thereof, and assuming all liability of accident to the same, figured on the use of the said bridge as a fixed structure." The Chief Engineers of the C., R. I. & P. Ry. Co. and the Sanitary District fixed the amount of indemnity and the Chief Engineer of the Sanitary District reported the result to the Board on November 28th (pages 6866-8). This report was referred to the Committee on Engineering

and, on December 12th (pages 6909-10), the amount determined on was ordered paid. The joint certificate of the Chief Engineers appears on page 6868.

The amounts vouchered to this Company during the year are as follows:

Temporary trestle.....	\$ 829 84
Permanent bridge.....	357 09
Maintenance of permanent bridge.	9,763 40
Total .....	<u>\$10,950 33</u>

PUBLIC CORPORATIONS.

*City of Chicago.*

As was stated in the Annual Report of this Department for the year 1899, under this head (page 5735), the Board of Trustees of the Sanitary District passed an ordinance binding itself to the permanent maintenance and operation of the proposed Lawrence Avenue and Thirty-ninth Street Pumping systems, to be constructed by the City of Chicago. An agreement to this effect was executed by the City and, on April 4, 1900, the Board authorized its President and Clerk to execute it on behalf of the Sanitary District. The executed agreement bears date of November 18, 1899, a copy of which appears on pages 6390-2 of the Proceedings.

On May 16th (pages 6553-4), the Board adopted a report of the Committee on Engineering, wherein the Chief Engineer was directed to appoint a sufficient number of inspectors to thoroughly inspect the Thirty-ninth Street conduit until the completion of same; and the President was directed to communicate with the Mayor of the City of Chicago, requesting that the City complete the said conduit at the earliest date.

On July 11th (pages 6643-4), the Board authorized its President and Clerk to execute a form of lease between the City of Chicago and the Sanitary District for the Bridgeport Pumping Works. On August 29th (page 6701), the Clerk transmitted the executed lease to the Board. The said lease bears date of July 13, 1900, and appears on pages 6704-5 of the Proceedings.

On August 29th (pages 6717-19), the Board passed an ordinance wherein it accepted an ordinance of the City of Chicago in reference to the construction of bridges across the Chicago River at State, Randolph, Harrison, Polk, Eighteenth and Main Streets, and Ashland Avenue. The City ordinance was passed on July 16th and a

copy of same appears on pages 6718-19 of the Proceedings of the Sanitary District.

On October 3rd (page 6786), the Board authorized its President and Clerk to execute, on behalf of the Sanitary District, a contract with the City of Chicago for the leasing of water power at or near the Controlling Works near Lockport. The form of agreement appears on pages 6786-90 of the Proceedings.

#### *Village of Spring Forrest.*

On October 3rd (page 6783), the Committee on Engineering reported on a communication from the Village Clerk of the Village of Spring Forrest, in reference to the construction of a sidewalk along the Willow Springs Road from the Illinois and Michigan Canal to the Desplaines River, and the Board authorized the Chief Engineer to construct the same. This work was done in the month of November at a cost to the District of \$193.88.

#### *Village of Lemont.*

On January 19th (pages 6251-2), the Board adopted a form of resolution for passage by the Board of Highway Commissioners of the Village of Lemont in reference to "granting to the Sanitary District of Chicago the right to construct its Main Channel and cross with its right of way the street commonly known as Stevens Street." On May 19th the said Highway Commissioners adopted a resolution in conformity with the form of resolution recommended by the Sanitary District Board and, on May 23rd (pages 6576-7), the said Board accepted, by resolution, the resolution of the said Highway Commissioners. The form of resolution adopted by the Highway Commissioners appears on pages 6251-2 and the resolution of acceptance by the District appears on pages 6576-7 of the Proceedings.

#### *City of Joliet.*

On November 9th (page 6843), a communication from the City Attorney of the City of Joliet, in reference to the opening of a sewer in DeKalb Street and the doing away of the stagnant water on the right of way of the District, lying between Wallace and McDonough Streets, was referred to the Committee on Engineering and the Chief Engineer directed to report to the said Committee on the matter. On November 26th (page 268 of his letter book), the Chief Engineer reported on same and, on November 28th (page 6870), the Board authorized the Chief Engineer to take measures toward disposing of the stagnant water by filling in the land at that point.

The request for the opening up of the DeKalb Street sewer was not granted.

#### *The Canal Commissioners.*

In accordance with the terms of the agreement with the Canal Commissioners and the Sanitary District, dated December 21, 1899 (pages 6199-6201), it became incumbent upon the District to maintain the "Summit level" in the Illinois and Michigan Canal after the water was turned into the Main Channel. At the time the water was turned into the said Main Channel, the City of Chicago was operating the Bridgeport Pumps and continued to do so until July 16th, at which time the Sanitary District did the pumping with its own organization. Pumping was continued until December 18th, at which time the plant was shut down for the navigation season.

As was stated under the head of "Illinois and Michigan Canal Improvement at Bridgeport," in this report, the Sanitary District lowered the lock in the I. and M. Canal at Bridgeport and did considerable dredging between the Chicago River entrance to the canal and the lock. The Canal Commissioners also did some work at this point with its own plant.

These Commissioners also carried on operations during the year on Sections 17 and 18 at Joliet.

The following vouchers were issued during the year to the Canal Commissioners:

Building lock gates and dredging at Bridgeport.....	\$ 3,512 15
Rent of hoisting engine to supply steam for pipe system at Controlling Works .....	456 00
Use of dredge, labor on Dam No. 1, etc., account construction on Sections 17 and 18.....	14,405 50
Inspection of Dam No. 1 and tow-path wall, account engineering expenses on Sections 17 and 18.	1,331 18
Total .....	\$19,704 83

#### **WATER POWER DEVELOPMENT.**

On October 3rd (page 6786), the Board authorized its President and Clerk to execute an agreement with the City of Chicago for the development and leasing of the water power at the Controlling Works. The agreement was not executed in the year 1900. The form of agreement appears on pages 6786-90 of the Proceedings.

On July 18th (page 6690), the Board au-

thorized the Chief Engineer to purchase a small turbine wheel with the necessary machinery, and to establish same, for the purpose of generating electric light and power for local purposes at the Controlling Works. On October 3rd (page 6790), the Board granted a request of the Chief Engineer to put in two turbine wheels instead of one. Vouchers to the amount of \$16,277.32 were issued during the year on this account (for an itemized statement of these vouchers see Section 15, Controlling Works, of this Report).

#### STATE INSPECTION OF CANAL.

On July 11th (pages 6661-2), the Board received a communication from Mr. Isaac Taylor, President of the Special Commission on Chicago Drainage Canal, in which was stated that the labors of the said Commission were about at an end and that the final report would be delivered to the Governor of the State about August 1, 1900. The report was published in book form and consists of 132 pages of matter.

#### BRIDGEPORT PUMPING WORKS.

As was stated under the head of "The Canal Commissioners," the Sanitary District agreed to keep up the "Summit level" in the I. and M. Canal by pumping at the Bridgeport Pumping Station, and that the entire cost was to be borne by the Sanitary District. The City of Chicago was doing the pumping previous to the assumption of this obligation and continued to do so until July 16th, when the District carried on operations with its own organization until the close of the season. The cost of carrying on the pumping for the whole year was \$31,135.62—an average of \$2,594.63 per month.

#### SANITARY DISTRICT TELEPHONE LINE.

On July 11th (page 6644), the President presented a message to the Board calling attention to the inadequate telephone service between the Controlling Works at Lockport and the headquarters of the District. The message was referred to the Committee on Engineering, with instructions to report back as to the advisability of the District constructing its own line. On July 18th (page 6679), the Board authorized the Chief Engineer to purchase the material necessary to construct the said line and to have the work done on Sanitary District force account.

This work was begun in the month of August with a force of from twelve to fifteen men and was entirely completed in

December. The vouchers issued during the year on this account are as follows:

For material entering into the line.	\$2,893 80
For tools, supplies, transportation, etc.....	1,461 84
For labor.....	3,847 74

Total .....	<u>\$8,203 38</u>
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#### NEW CONTROLLING WORKS.

On July 11th (pages 6661-2), a communication from the Chief Engineer "In reference to the scope of the plans for the proposed Controlling Works at the entrance to the Main Channel" was referred to the Committee on Engineering. On July 18th (page 6689), a communication from Ossian Guthrie in reference to a plan for controlling the flow of the water in the Main Channel was referred to the Committee on Engineering, with power to act.

On August 29th (page 6701), a message from the President in reference to the desirability of constructing a controlling works at or near Kedzie Avenue, "for the purpose of controlling the lake fluctuations and as a safeguard in case of any accident in the Chicago River or at the Controlling Works at Lockport," was referred to the Committee on Engineering.

On September 5th (pages 6725-6), the Board declared itself in favor of constructing a controlling works in the vicinity of Kedzie and California Avenues, and directed the Committee on Engineering to report a plan for same at the earliest practicable date. The matter was not reported on in the year 1900.

#### ORGANIZATION.

The work of the Engineering Department continued to be carried on through three Divisions, namely: Drafting and Designing, Construction, and Records. The changes made in the organization of the engineering staff were as follows: On June 15th, Mr. H. B. Alexander, who had charge of the Lockport Division, severed his connection with the District and Mr. J. S. Hull assumed charge of the said Division, in addition to the Joliet Division, of which he had charge at that time. On December 31st, Mr. J. S. Hull severed his connection with the District and Mr. W. T. Keating, who was in charge of the Corwith Division, was placed in charge of all the work between Robey Street and Joliet. On the same date, Mr. W. M. Hughes, Engineer of Bridges and Bridge Construction, severed his connection with the District.



On December 24th (page 6922), the Board employed Mr. James A. Seddon to revise the flow levels of the Illinois River between Joliet and LaSalle, at a salary of \$300.00 per month.

The variety and value of the work done for the year in the several divisions of this Department is shown in the monthly reports published in the Proceedings, as follows:

January (6344-51); February (6399-6402); March (6433-6); April (6565-8); May (6618-21); June (6672-4); July (6709-12); August (6753-6); September (6809-11); October (6833-6); November (6913-16). The December report appears in the Proceedings for January 16, 1901 (pages 6944-7).

The largest number of employees in the service of this Department was 98, in the month of January, and the smallest number was 38, in the month of December.

The cost of the Engineering Department from its organization to December 31, 1900, was \$1,500,075.29. The total value of construction work accomplished during the same period was \$24,816,893.72. The cost of Engineering (which included items of every description outside of construction) compared with the earnings on construction account is about 6.04 per cent.

#### MISCELLANEOUS.

The miscellaneous items forming part of the Proceedings of the District and which have more or less connection with this Department are as follows:

Date.	Page of Proceedings.	Subject.
Jan. 24	6258	Invitation of St. Louis officials to visit Canal.
April 18	6419	Message of President on contemplated work of the District referred to Committee.
April 25	6443	Report on same.
May 23	6577	Resolutions on Inspection of Canal by Congressional Committee.
July 11	6641	Report of Major Willard, U. S. Engineer, on current in Chicago River.
Nov. 9	6839	Memorandum by Trustees in reference to deep waterway.
Dec. 3	6877	Message of retiring President.

#### DISTINGUISHED VISITORS.

The Channel was visited by thousands of people during the year, attracted from all parts of this country and lands across the sea as well, by its greatness and importance. On May 2nd, Admiral Dewey, the Hero of Manila Bay, was the guest of honor. A train was provided on which the distinguished guest was taken to the Chicago Terminal Transfer Bridge, crossing the Channel. At this point, the Admiral and his large escort of friends and admirers left the train and went aboard the steam yacht "Hinda," which had been chartered and fitted for the occasion. The Sanitary District steamer "Juliet" received many of the guests and, with several other boats, acted as convoy on the voyage to the Controlling Works. At every highway crossing the Channel crowds had gathered, who extended enthusiastic greetings to the Admiral. Just as the fleet entered the windage basin, a battery commanded by Major Allen Lester Fowler began firing an Admiral's salute. The third discharge was premature and one of the gunners was seriously hurt. A terrific thunder storm burst almost at the moment of the accident, drenching the many thousands of spectators and preventing the Admiral from landing to inspect the works. Returning to Romeo, a transfer was made to a Santa

Fe train and a rapid run was made back to the City.

On August 21st, the Rivers and Harbors Committee of Congress were guests of the District and made an inspection of the Chicago River, the Main Channel and the Controlling Works, going down by water and returning from Lockport by train.

#### CONCLUSION.

It is fitting that I should state that the labor of preparing this report, involving as it has done careful research for the ascertainment of facts and the compilation of figures, has fallen upon the Record Clerk of this Department, Mr. William Trinkaus, who has thus carried a heavy burden for me. My own part in it has been critical and editorial.

The fact that I have had the continued support and co-operation of your Honorable Board has made it possible for me to discharge the difficult and arduous duties which have devolved upon me with the measure of success which has crowned my efforts and, for that support, co-operation and good will I thank you.

Respectfully submitted,

(Signed)

ISHAM RANDOLPH,

Chief Engineer.

December 27,]

—7680—

[1901





TROLLING WORKS.		JOLIET PROJECT.			Illinois and Michigan Canal Improvement at Bridgeport.	Totals.
Gates Bear Dam.	Bridges.	Excavation, Etc.	Temporary Bridges.	Permanent Bridges.		
						\$ 1,180,125 50
						670,716 61
						287,432 44
						162,235 22
						221,286 16
						332,843 87
						280,846 00
						336,378 06
						402,703 92
						398,425 95
						798,813 69
						504,919 83
						484,259 40
						498,587 76
						917,325 81
						1,356,510 66
						940,975 86
						842,507 20
						1,059,361 36
						755,860 92
						745,016 33
						797,495 93
						1,021,718 84
						819,424 30
						1,009,136 70
						841,571 92
						883,832 72
						821,201 19
						932,350 60
						552,033 46
865 20						311,805 20
		\$ 102,939 83	\$ 1,500 00			104,439 83
		612,103 06	2,753 92			614,856 98
		586,963 23	21,129 66			588,121 89
						18,000 00
						18,000 00
						35,443 11
						18,000 00
						18,000 00
						107,408 96
						442,652 64
						18,000 00
						20,500 00
						18,000 00
						15,000 00
						155,581 67
						717,729 53
						180,777 54
						13,002 95
						43,559 81
						81,574 56
						230,177 27
						114,305 72
						41,193 18
						50,918 69
						23,167 40

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ROLLING WORKS.		JOLIET PROJECT.			Illinois and Michigan Canal Improvement at Bridgeport.	Totals.
Dates, Trap Etc.	Permanent Bridges.	Excavation, Etc.	Temporary Bridges.	Permanent Bridges.		
.....	.....	.....	.....	.....	.....	\$ 215,473 87
.....	.....	.....	.....	.....	.....	152,812 09
.....	.....	.....	.....	.....	.....	84,574 35
.....	.....	.....	.....	.....	.....	6,328 39
.....	.....	.....	.....	.....	.....	8,225 20
.....	.....	.....	.....	.....	.....	357 93
.....	.....	.....	.....	.....	.....	4,743 84
.....	.....	.....	.....	.....	.....	1,070 82
.....	.....	.....	.....	.....	.....	845 12
46 59	.....	.....	.....	.....	.....	41,946 59
.....	.....	\$ 30,141 56	.....	.....	.....	30,141 56
.....	.....	105,413 51	\$ 2,273 79	.....	.....	107,687 30
.....	.....	163,059 61	2,986 39	.....	.....	166,046 00
.....	.....	.....	.....	.....	.....	12,000 00
.....	.....	.....	.....	.....	.....	12,000 00
.....	.....	.....	.....	.....	.....	21,357 47
.....	.....	.....	.....	.....	.....	18,000 00
.....	.....	.....	.....	.....	.....	12,000 00
.....	.....	.....	.....	.....	.....	12,000 00
.....	.....	.....	.....	.....	.....	42,971 19
.....	.....	.....	.....	.....	.....	133,482 54
.....	.....	.....	.....	.....	.....	12,000 00
.....	.....	.....	.....	.....	.....	20,500 00
.....	.....	.....	.....	.....	.....	18,000 00
.....	.....	.....	.....	.....	.....	15,000 00
.....	.....	.....	.....	.....	.....	1,014 11
.....	.....	.....	.....	.....	.....	252,846 93
.....	.....	.....	.....	.....	.....	11,907 74
.....	.....	.....	.....	.....	.....	192 80
.....	.....	.....	.....	.....	.....	896 56
.....	.....	.....	.....	.....	.....	109,875 68
.....	.....	.....	.....	.....	.....	232 94
.....	.....	.....	.....	.....	.....	198 88
.....	.....	.....	.....	.....	.....	22,504 78
.....	.....	.....	.....	.....	.....	5,283 43
.....	.....	.....	.....	.....	.....	477 63
.....	.....	.....	.....	.....	.....	8,777 56
.....	\$ 7,924 50	.....	.....	.....	.....	7,924 50
.....	.....	.....	.....	\$ 152 80	.....	152 80
.....	.....	.....	.....	208 52	.....	208 52
.....	.....	.....	.....	23,098 61	.....	23,098 61
.....	.....	.....	.....	41,481 76	.....	41,481 76
.....	.....	.....	.....	30,165 19	.....	30,165 19
.....	.....	.....	.....	27,589 83	.....	27,589 83
.....	.....	.....	.....	.....	.....	9,666 72
.....	.....	.....	.....	.....	\$ 76,809 17	76,809 17
46 59	\$ 7,924 50	\$ 298,614 68	\$ 5,260 18	\$ 122,696 71	\$ 76,809 17	\$ 1,768,910 20
24 50	.....	122,696 71	.....	.....	.....	.....
.....	.....	5,260 18	.....	.....	.....	.....
71 09	.....	\$ 426,571 57	.....	.....	.....	.....

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ROLLING WORKS.		JOLIET PROJECT.			Illinois and Michigan Canal Improvement at Bridgeport.	Totals.
Items ar m.	Bridges.	Excavation, Etc.	Temporary Bridges.	Permanent Bridges.		
						\$ 463,573 06
						541,103 19
						643,352 96
						278,975 39
						162,235 22
						217,287 06
						326,843 87
						289,846 00
						336,378 02
						402,763 92
						398,425 95
						798,813 69
						594,919 83
						484,259 40
						498,587 76
						917,325 81
						1,356,510 66
						940,975 88
						842,507 20
						1,059,361 36
						755,860 92
						745,016 33
						797,495 93
						1,021,718 84
						819,424 30
						1,009,136 70
						841,571 92
						883,832 72
						821,201 19
						932,350 60
						552,033 46
20		\$ 102,839 83	\$ 1,500 00			306,865 20
		541,001 79	2,753 92			104,439 83
		566,962 23	21,129 66			543,755 71
						588,121 89
						12,000 00
						12,000 00
						35,055 66
						18,000 00
						12,000 00
						82,326 30
						290,076 32
						12,000 00
						20,500 00
						18,000 00
						15,000 00
						151,281 67
						590,071 85
						180,777 54
						13,002 95
						43,559 81
						81,574 56
						190,177 27
						114,305 72
						41,163 18
						50,918 69
						23,167 40

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Masonry and  
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# CHIEF ENGINEER'S REPORT IN REFERENCE TO SALE OF COPPER WIRE.

The Clerk presented a report from Chief Engineer Randolph, accompanied by check the sum of \$699.89, being the proceeds of a sale of certain copper wire to the Great Western Smelting and Refining Company.

The report is as follows:

CHICAGO, December 14, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—We have been subjected to so much annoyance coupled with loss of material due to the stealing of our copper wire that, after talking with the Vice-President and Chairman of the Finance Committee, I decided to replace the copper wire with iron wire. This has been done between Robey street and Lemont at a cost of about \$390.00 for labor and material.

I have sold the copper wire which we took down, 4,955 pounds, for 14½ cents per pound to the Great Western Smelting and Refining Company, and I enclose their check for \$699.89.

This work was stopped because we ran out of steel wire and before we could get the balance needed to complete, the weather was such that we could not use the Naptha launch for transporting men and material.

We have wire enough in stock now to complete the work when the weather permits.

The weight of the copper wire still on the poles is about 4,000 pounds.

Respectfully submitted,

ISHAM RANDOLPH,  
Chief Engineer.

Mr. Braden, seconded by Mr. Wenter, moved that the action of the Chief Engineer be concurred in, and the report ordered printed and placed on file.

The motion prevailed unanimously, and was so ordered.

REPORT TRANSMITTING FORM OF ADVERTISEMENT FOR PROPOSALS TO DESIGN, CONSTRUCT AND ERECT PUMPING ENGINES AT THE PUMPING STATION AT THIRTY-NINTH STREET AND LAKE MICHIGAN.

Mr. Braden, Chairman of the Committee

on Engineering, presented a report from the Committee, as follows:

CHICAGO, December 27, 1901.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering herewith transmits a form of advertisement for proposals for work to be done in designing, constructing and erecting pumping engines at the pumping station at Thirty-ninth Street and Lake Michigan, being the intake of the Thirty-ninth Street conduit, said bids to be opened Wednesday, March 5, 1902, at two o'clock P. M.

The Committee recommends that the Clerk of the District be directed to cause said advertisement to be duly published and bids solicited for the work as outlined in said proposals.

Respectfully submitted,

(Signed.)

Z. R. CARTER,

THOMAS A. SMYTH,

THOMAS J. WEBB,

WM. LEGNER,

FRANK X. CLOIDT,

FRANK WENTER,

Committee on Engineering.

(The report being accompanied by the specifications for said pumping engines.)

Mr. Wenter, seconded by Mr. Carter, moved that the report be adopted and the recommendations contained therein concurred in.

The roll being called, the motion was carried by the following vote:

Yeas—Messrs. Carter, Cloidt, Legner, Smyth, Webb and Wenter—Six.

Nays—Mr. Braden—One.

Mr. Braden, in explanation of his vote against the adoption of the report of the Committee on Engineering, requested to be recorded as follows:

"I want to state that I called on the Chief Engineer twelve months ago for plans of the pump known as the 'wheel pump'. I reminded him of it several times during the year, and the Committee requested him some two weeks ago to

furnish the figures, and he not having furnished them, I vote 'nay'".

The following is the form of advertisement authorized to be published:

**PROPOSAL FOR DESIGNING, CONSTRUCTING AND ERECTING PUMPING ENGINES AT PUMPING STATION AT THIRTY-NINTH STREET AND LAKE MICHIGAN, BEING THE INTAKE OF THE THIRTY-NINTH STREET CONDUIT IN THE CITY OF CHICAGO.**

**SANITARY DISTRICT OF CHICAGO.**

*Notice to Builders of Pumping Engines*—Sealed proposals for pumping engines for the pumping station at Thirty-ninth Street and Lake Michigan will be received by the Board of Trustees of the Sanitary District of Chicago at its office in the Security Building, Room 1110 (until 12 M., Standard Time), of the 5th day of March, A. D. 1902, and will be publicly opened and read by the Board of Trustees at the regular meeting held that day.

Bidders are particularly requested to carefully read the specifications, and to examine for themselves the location of the proposed work in order that no misunderstanding may exist as to facility of handling material, or as to the general nature of the work to be done. All bids must be made upon the blank form hereto attached. Bidders must state a price for the whole work, which price shall include all cost of materials and labor and all expenses incurred by and in consequence of a faithful compliance with each and every one of the requirements of the annexed specifications, and for thoroughly and faithfully completing the whole of said work in the manner therein specified. The price bid must be stated both in words and figures.

Each bidder is required to state in his proposal his name and place of residence, and the names of all persons interested with him.

Each bid must be signed with full names and addresses, be enclosed in a sealed envelope, endorsed "Proposal for pumping engines and pumps for the pumping station at Thirty-ninth Street and Lake Michigan," and be delivered to the Clerk. No bid will be allowed to be withdrawn for any reason whatever after it has been deposited with the Clerk.

No bid will be received and deposited unless accompanied by ten thousand dollars in money or a certified check for the same amount on some responsible bank doing business in the City of Chicago, and be made payable to the order of the Clerk of the Sanitary District, which money or check will be returned to the bidder unless forfeited by the abandonment of the proposal. Such money or check must not be enclosed in the sealed envelope containing

the bid but must be delivered to the Clerk, who will give a proper voucher for the deposit.

Each bidder shall furnish with his bid at least three sheets of drawings or blue prints of uniform size, for each pumping engine; each sheet shall not be less than 36x42 inches and shall have a clear margin of at least one and one-half inches. The drawings shall be as follows:

1. Outline plan showing general features of the proposed pumping engine, steam piping, engine, pump, pump well and all foundations. Scale not less than one-quarter inch to one foot.

2. Front and side elevations and partial section through engine house (two drawings on one sheet) showing the external features of the engine and pump, also of the pump suction and discharge, pump well and engine foundations. Scale not less than one-half inch to one foot.

3. Two sectional elevations of engine and pump showing their interior design and construction. Scale not less than one-half inch to one foot.

The drawings will be examined by the Chief Engineer of the Sanitary District and his advisory engineers, but will not be made public nor be shown to competing manufacturers. The drawings are not to be enclosed with the proposal, but are to be signed by the bidder and have suitable titles for identification.

Detailed specifications must also accompany the proposal and give clearly and fully the size, dimensions, arrangement and material of the cylinders, pump chambers and disc, condenser, main steam piping and all other parts, with the estimated weight of the principal groups of parts, and ample information to furnish a clear understanding of all the points regarding the design, workmanship, strength, weight and durability and general efficiency of, and space occupied by, the whole mechanism and plant in the station.

In addition to the bid, the factors which will be considered in awarding the contract, are the compactness, strength and adaptability of the machinery for the work required, the economy and facility of handling, operating and maintaining the same, and the cost of necessary foundations.

All bids which are not in conformity with this notice will be rejected.

A bond of an approved surety company will be required for the faithful performance of the contract in a sum equal to 50 per cent of the amount of the contract.

Any bidder whose proposal shall be accepted

by the Board of Trustees, shall appear in the office of the Sanitary District within ten days from the date of notice of such acceptance and execute the contract and furnish the bond for the performance of the work as provided.

The Board of Trustees reserves the right to determine the time for commencing the erection of the work referred to herein, and bidders are informed that under no circumstances will any deviation from the specification be allowed without the written permission of the Chief Engineer, whose interpretation thereof will be final and conclusive.

The Board of Trustees expressly reserves the right to reject any or all bids which it may deem prejudicial to the public interest.

Bidders must present evidence satisfactory to the Board of Trustees that they are fully competent, have the necessary facilities and pecuniary resources to perform the work required in a satisfactory manner, and within the time specified.

SANITARY DISTRICT OF CHICAGO,

By THOMAS A. SMYTH,

President.

A. R. PORTER,

Clerk.

REPORT TRANSMITTING FORM OF LEASE  
FOR ACREAGE LAND TO S. P. NORTH  
AND GUY R. GODFREY.

Mr. Carter, Chairman of the Committee on Finance, presented a report from the Committee, as follows:

CHICAGO, December 27, 1901.

To the Honorable, the Board of Trustees of the  
Sanitary District of Chicago:

GENTLEMEN—Your Committee on Finance reports herewith a form of ground lease to be executed by the District with the party hereinafter mentioned for the use of certain lands owned by the District. The lands rented are to be used for farming and grazing purposes by S. P. North and Guy R. Godfrey, of Lockport, Will County, Illinois, at an annual rental of one hundred and eighty-five dollars, payable in advance, and are leased for the term of three years; and said lease is in conformity with the form of lease heretofore adopted by the Board of Trustees for use in cases as above.

The Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to execute, on behalf of the District, said lease to the parties as above set forth, the said parties

having executed the same and having complied with the terms and conditions thereof which were deemed necessary as conditions precedent to the execution of said lease.

Respectfully submitted,

(Signed)

Z. R. CARTER,

Chairman.

THOMAS J. WEBB,

FRANK X. CLOIDT,

WM. LEGNER,

FRANK WENTER,

Committee on Finance.

(One enclosure).

On motion of Mr. Carter, seconded by Mr. Wenter, the report was adopted and the recommendations contained therein concurred in.

Yeas—Messrs. Braden, Carter, Cloidt, Legner, Smyth, Webb and Wenter—Seven.  
Nays—None.

The following is the form of lease to S. P. North and Guy R. Godfrey, referred to in the report of the Committee:

THIS INDENTURE, Made this first day of December in the year of our Lord one thousand nine hundred and one, between the Sanitary District of Chicago, a corporation organized and existing under the laws of the State of Illinois, party of the first part, and S. P. North and Guy R. Godfrey, of Lockport, Will County, Illinois, party of the second part.

WITNESSETH, That the said party of the first part, for and in consideration of the covenants and agreements hereinafter mentioned, to be kept and performed by the said party of the second part, their executors, administrators and assigns, has demised and leased to the said party of the second part all those premises situate, lying and being in the County of Will, and State of Illinois, known and described as follows, to-wit:

That part of Section 27, Township 36 North, Range 10, east of the 8d Principal Meridian, lying west of the West Branch of the Des-plaines River and easterly of the Chicago and Joliet road, excepting the following described tract of land: Beginning at a point in the west line of said Section 27, 827.27 feet south of the east and west center line of said Section 27; running thence east on a line parallel to said east and west center line for a distance of 296.47 feet; running thence southwesterly to a point on said west line of said Section 27 1,918.97 feet south of said east and west center

line; running thence north on said west line to said Section 27, to the point of beginning.

Also that part of the northeast quarter of Section 28, Township 36 North, Range 10, east of the 3d Principal Meridian, lying easterly of the Chicago and Joliet road. Also that part of the north 827.27 feet of the southeast quarter of Section 28, Township 36 north, Range 10 east of the Third Principal Meridian, lying easterly of the Chicago and Joliet Road; also that part of the southeast quarter of Section 28, Township 36 North, Range 10 East of the Third Principal Meridian, lying south and east of a line drawn from a point in the south line of said southeast quarter of Section 28, 200 feet west of the southeast corner of said southeast quarter to a point in the east line of said southeast quarter, 738.5 feet north of said southeast corner, exclusive of overflowed land on the above described property, containing 185 acres, more or less, excepting therefrom the Main Drainage Channel of the Sanitary District of Chicago and a strip of land two hundred (200) feet wide on each side of said Channel and adjacent thereto.

To have and to hold the above described premises, with the appurtenances, unto the said party of the second part, their executors, administrators and assigns, from the first day of December, in the year of our Lord one thousand nine hundred and one, for and during and until the thirtieth day of November, A. D. one thousand nine hundred and four.

It is further expressly covenanted and agreed, however, by and between the parties aforesaid, that said party of the first part, its successors or assigns, reserves to itself the right, at any time, at its election, to declare said lease terminated and, either with or without process of law, and using such force as may be necessary in so doing, to re-enter said demised premises and again repossess and enjoy said premises as in its first and former state. Said party of the first part hereby covenants and agrees, in case it does terminate this lease as above provided, and for no cause given by said party of the second part, to pay to said party of the second part such sum of money as shall be appraised as damages caused by such termination of this lease, said damages to be appraised by a board of three arbitrators, one to be appointed by the party of the first part, and one by the party of the second part, and said two so appointed to choose a third one, the award of said Board of Arbitrators to be final and binding upon both parties to this lease.

And the said party of the second part, in consideration of the leasing of the premises aforesaid by the said party of the first part to he said party of the second part, does cove-

nant and agree with said party of the first part, its successors and assigns, to pay the said party of the first part, as rent for said demised premises, at the office of said first party, in Chicago, the sum of five hundred and fifty-five (\$555.00) dollars in installments of one hundred and eighty-five (\$185.00) dollars each, payable annually in advance. The said party of the first part further reserves the right to go upon said property at any time for surveying or any other corporate uses, which said party of the first part may desire to subject said property to. The said parties of the second part further agree to build a fence around said above described property at their own expense, the cost of said expense not to exceed the amount of one years' rent; and it is further agreed that the said fence is to become the property of the said party of the first part at the expiration of this lease. It is further agreed by and between the parties hereto that if for any reason this lease shall be terminated before its full term shall have elapsed, then, and in that event, the cost of said fence shall be prorated between said parties.

It is further agreed by said second parties that they will cut all Canada thistles found upon said property and keep said property free and clear from same. The said second parties hereby agree to waive all damages which may be caused to the above described property by overflow.

It is further covenanted and agreed by the said party of the second part that they will pay, or cause to be paid, all water rates and all taxes and assessments that may be laid, charged or assessed on said demised premises, pending the existence of this lease, or if at any time after any tax, assessment or water rate shall have become due or payable, the party of the second part, or their legal representatives, shall neglect to pay such water rates, tax or assessment, it may be lawful for the party of the first part to pay the same at any time thereafter, and the amount of any and all such payments so made by the party of the first part shall be deemed and taken, and are hereby declared to be so much additional and further rent for the above demised premises, due from and payable by the party of the second part; and may be collected in the same manner, by distress or otherwise, as is hereinafter provided for the collection of other rents to grow due thereon.

And it is expressly understood and agreed by the said party of the second part hereto, for their heirs, executors, administrators and assigns, that the whole amount of rent reserved and agreed to be paid for said above demised premises, and each and every installment thereof, shall be and is hereby declared to be a valid and first lien upon any and all



buildings and improvements on said premises, or that may at any time be erected, placed or put on said premises by said party of the second part, their heirs, executors and administrators or assigns, and upon his or their interests in this lease and the premises hereby demised; and that whenever and as often as any installment of rent or any other amount above declared to be deemed and taken as rent shall become due and remain unpaid for one day after the same becomes due and payable, said party of the first part, its successors, agent, attorney, or assigns, may sell at public auction, to the highest bidder for cash, after having first given ten days' notice of the time and place of such sale, in some newspaper published in Will County, all the buildings and improvements on said premises, and all the right, title and interest acquired by said party of the second part under this lease to the premises herein described, and as the attorney of said party of the second part—hereby irrevocably constituted—may make to the purchaser or purchasers thereof a suitable and proper transfer, bill of sale, or deed of the same, and out of the proceeds arising from such sale, after first paying all costs and expenses of such sale, including commissions and attorneys' fees, retain to said first party the whole amount due on said lease up to the date of such sale, rendering the surplus, if any, to said party of the second part, their heirs, executors, administrators, agent, attorney or assigns, which sale shall be a perpetual bar to and against all rights and equities of said party of the second part, their heirs and assigns, in and to the property sold.

It is expressly covenanted and agreed by said party of the second part, their executors, administrators and assigns, that they will use said above described premises for farming purposes only, and that they will not use said premises or suffer them to be used for the sale of wines, ales, liquors or any other intoxicating beverages whatsoever, or for the purpose of gambling in any manner whatsoever.

And the party of the second part further covenants with the party of the first part that they will keep said demised premises in a clean and wholesome condition, in accordance with the ordinances and regulations of the County of Will, and directions of the health officers, and that at the expiration of the time in this lease mentioned they will yield up said premises to the party of the first part in as good condition as when the same were entered upon by the party of the second part, loss by fire or inevitable accident and ordinary wear excepted.

It is further agreed by the party of the second part that neither they nor their legal representatives will underlet said premises, or any part thereof, or assign this lease, without

the written assent of said party of the first part first had and obtained thereto; nor use or suffer them to be used for any other purpose than that above mentioned.

It is expressly understood and agreed by and between the parties aforesaid, that if the rent above reserved, or any part thereof, shall be behind or unpaid on the day of payment whereon it ought to be paid, as aforesaid, or if default shall be made in any of the covenants herein contained to be kept by the party of the second part, their executors, administrators or assigns, it shall be lawful for the party of the first part, or its successors, agent, attorney or assigns, at its election, to declare said term ended, and into the said demised premises, or any part thereof, either with or without process of law, to re-enter, and the party of the second part, or any other person or persons, occupying, in or upon the same, to expel, remove and put out, using such force as may be necessary in so doing, and the said premises again to repossess and enjoy as of its first and former estate, and to distrain for any rent that may be due thereon upon any property belonging to the party of the second part, whether the same be exempt from execution and distress by law or not; and the party of the second part, in that case, hereby waives all legal rights which they now have, or may have, to hold or retain any such property under any exemption laws now in force in this state, or in any other way, meaning and intending hereby to give the party of the first part, its successors, agent, attorney or assigns, a valid and first lien upon any and all the goods, chattels, or other property belonging to the party of the second part as security for the payment of said rent, in manner aforesaid, anything hereinbefore contained to the contrary notwithstanding. And if at any time said term shall be ended at such election of said party of the first part, its successors, agent, attorneys or assigns, as aforesaid, or in any other way, the party of the second part does hereby covenant and agree to surrender and deliver up said above described premises and property peaceably to the said party of the first part, its successors, agent, attorney or assigns, immediately upon the determination of said term as aforesaid; and if they shall remain in possession of the same one day after notice of such default, or after the termination of this lease, in any of the ways above named, they shall be deemed guilty of a forcible detainer of the premises under the statute, and shall be subject to all the conditions and provisions above named, and to eviction and removal, forcibly or otherwise, with or without process of law, as above stated.

And it is further understood and agreed by

the said party of the second part that neither the right given in this lease to said party of the first part to collect the rent that may be due under the terms of this lease, by sale or any proceedings under the same shall in any way affect the right of said party of the first part to declare this lease void and the term hereby created ended, as above provided, upon default made by said party of the second part.

And the said party of the second part hereby waive their right to any notice from said party of the first part of its election to declare this lease at an end, under any of its provisions, or any demand for the payment of rent, or the possession of premises leased herein; but the simple fact of the non-payment of the rent reserved shall constitute a forcible detainer as aforesaid.

The said party of the second part further agrees not to remove any buildings or other improvements from said premises without written consent of said party of the first part, and that the said second party shall pay and discharge all costs and attorneys' fees and expenses that shall arise from enforcing the covenants of this indenture by the party of the first part.

It is further understood and agreed that all the conditions and covenants contained in this lease shall be binding upon the heirs, executors, administrators, successors and assigns of the parties to these presents, respectively.

In witness whereof, the said parties have hereunto set their hands and seals the day and year first above written.

#### SANITARY DISTRICT OF CHICAGO.

[SEAL] By THOMAS A. SMYTH,  
President.

Attest:  
A. R. PORTER,  
Clerk.

[SEAL] S. P. NORTH,  
[SEAL] GUY R. GODFREY.

#### COMMUNICATION FROM CHICAGO ACADEMY OF SCIENCES TENDERING THANKS FOR PHOTOGRAPHS AND MODELS OF THE DRAINAGE CHANNEL.

The Clerk presented the following communication from William K. Higley, Secretary of the Chicago Academy of Sciences:

THE CHICAGO ACADEMY OF SCIENCES,  
CHICAGO, ILLINOIS, U. S. A. }

CHICAGO, December 18, 1901.

GENTLEMEN—I desire to acknowledge the re-

ceipt, on December 17, 1901, by the Chicago Academy of Sciences of the very valuable and instructive models and photographs of the Canal of the Sanitary District of Chicago.

I am instructed by resolutions adopted by the Academy, December 17, 1901, to say that this gift is accepted by the Academy and to convey to your Board the unanimous thanks of its members. We shall properly install and place on exhibition both the models and photographs as soon as possible. It will give us pleasure to exhibit them to visiting engineers and those in other avocations that you may refer to us. We also accept the provision mentioned in the resolution adopted by your Board providing for the removal and return of the models and photographs when it is thought desirable to exhibit them temporarily elsewhere.

Again thanking you for this valuable gift, which we know will be highly appreciated by all who visit us, I am

Very respectfully,

WILLIAM K. HIGLEY,

Secretary.

To the Sanitary District of Chicago, Mr. A. R. Porter, Clerk.

Mr. Webb, seconded by Mr. Wenter, moved that the communication be printed and placed on file as a part of the records of the Board.

The motion prevailed unanimously and it was so ordered.

#### COMMUNICATION FROM COMMISSIONER OF PUBLIC WORKS.

The Clerk presented a communication from F. W. Blocki, Commissioner of Public Works, in reference to approval of plans for the building of foundations for the pumps and engines at Thirty-ninth Street Pumping Station.

On motion of Mr. Braden, seconded by Mr. Wenter, the communication was referred to the Committee on Engineering.

#### REQUESTS FOR LEASE OF LAND.

The Clerk presented communications from C. A. Alling and Otis Graves, as follows:

Hon. Thomas A. Smyth, President of the Board of Trustees, Sanitary District:

DEAR SIR—I desire to lease for a term of years the property described as that part of

Lot four (4) Spaulding Family Subdivision, lying west of the right of way of the C. & C. T. Ry., and south of the Levee, containing about two and one-half ( $2\frac{1}{2}$ ) acres more or less, said Lot four (4) being located in that part of the west half ( $\frac{1}{2}$ ) of the southeast quarter ( $\frac{1}{4}$ ) of Section fourteen (14), Town thirty-eight (38), Range twelve (12) east of the Third Principal Meridian, lying north and west of the Northwestern reserve of the Illinois and Michigan Canal, except the right of way of the C. & C. T. Ry. Co.; the use I propose to subject said property to is that of manufacturing.

What I wish is a proposition from your Board as to what rental per annum you will lease said property to me for, and for what period of time. As I propose to erect expensive buildings and install expensive machinery, it is my wish to have said lease made to me for the longest period of time consistent with any corporate use you may have in mind to make of said property.

Yours respectfully,

C. A. ALLING.

CHICAGO, December 19, 1901.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I desire to lease from your Honorable Body, for a period of from one to five years, the following described property: That part of the old river bed of the Deaplaines River in Section 11, Township 38 North, Range 12 East of the Third Principal Meridian, lying southeasterly of the southeast bank of the New River Diversion and north of the south line of said Section 11, containing five acres, more or less.

I desire this property for the purpose of cutting ice, and submit the above for your consideration.

Very respectfully,

OTIS GRAVES.

The above communications, by unanimous consent, were referred to the Committee on Finance.

ADJOURNMENT.

On motion of Mr. Braden, seconded by Mr. Webb, the Board adjourned.

*A. R. Porter.*  
CLERK